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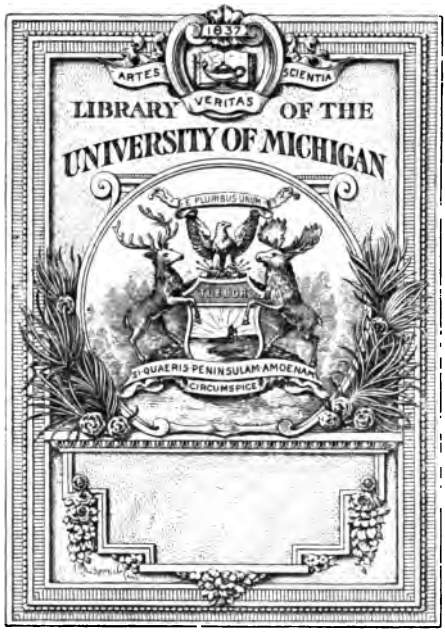
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THE

RETROSPECT

OF

PRACTICAL MEDICINE AND SURGERY,

BEING

A Half-yearly Journal,

CONTAINING A RETROSPECTIVE VIEW OF EVERY DISCOVERY AND PRACTICAL IMPROVEMENT IN THE MEDICAL SCIENCES.

Edited by

W. BRAITHWAITE,

Surgeon to the Leeds General Eye and Ear Infirmary; and Lecturer on Midwifery, and the Diseases of Women and Children, in the Leeds School of Medicine.

NO. I.....JANUARY TO JULY

1840.

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1845.

EDITOR'S PREFACE.

THERE are published at present, a great many most valuable Medical Journals in Great Britain, America, and on the Continent, all of which generally contain matter of a most interesting nature, and of the most vital consequence to the Medical man. Embodied in the general information of these Journals are also the valuable remarks and experience of the able editors. And besides these works, we have the Transactions of the different Medical Societies and Associations, published at stated times, which we may include under the name of the Periodical Medical Literature of the day. Now these Medical publications are, collectively, too voluminous and expensive for the generality of Medical practitioners. There is likewise mixed up in the different works, a great mass of information which, however interesting of its kind it may be, is not of much use to the Physician and Surgeon, who are actively engaged in bed-side practice, and who want to know, with as little *unnecessary* reading as possible, all that is going on in the Medical world and especially all that refers to the practical parts of their profession, and to the treatment of disease in particular.

The editor of this work has been accustomed for some time past, to take memoranda of the most interesting articles and observations which he met with in the different Medical Journals; and it occurred to him that they would be exceedingly useful to the profession, in the form in which they are now presented. They form a series of extracts and analyses respecting the treatment of disease which must be of the greatest use to every practitioner; as they will refresh the memories of those who may have already perused them, and to the majority of the profession who have only seen part of them, they will be a real novelty.

The work will be presented to the profession, in two half-yearly parts, *annually*, one in July, and another in January, so as to form one annual volume—which will constitute a condensed Register of Medical Facts and Observations for the past year, and a complete Retrospect of all that is valuable and worth preserving respecting the treatment of disease, gleaned from the British and Foreign Medical Journals, and the Transactions of the different Societies and Associations, and pre-

191656

sented to the reader in as condensed a form as possible, and generally in the words of the different authors.

The work will be on the same plan as the "*Year Book of Facts*," now conducted by the editor of the Arcana of Science, in which work will be found extracts and analyses from almost all the periodicals except those which are devoted exclusively to Medical subjects. It contains, almost entirely, matters of fact; and it is to be hoped that this work will, in the same way, contain nothing but what is truly valuable to the Medical practitioner, and especially to such as are already well versed in the rudiments of the profession, and actively engaged in practice. As few editorial remarks as possible have been made, as it would not have been possible to condense into so small a compass more useful matter than is here given; most of the articles being so extremely condensed, either in the words of the authors themselves, or in those of the different talented reviewers from whose works they have been extracted, that any further analysis would have been impossible. Of course the editor cannot lay claim to the least originality in the work—all that he can lay claim to is, a certain portion of industry in carefully reading a great number of works, and a certain degree of judgment in selecting, arranging, and condensing the different articles.

There are very few Medical men in the present day, probably, who take the trouble to read every periodical, for the sake of gleaning from different parts that which is the most valuable and practical; and there are still fewer who could afford to take them all in; and especially those country practitioners who have not the advantage of subscribing to a public Medical library. The work will form a kind of general index to all the Medical Journals of the day, pointing out those articles which are more particularly useful, and refreshing the memories of those gentlemen who have already read the articles and perhaps forgotten them. It seems a pity that such a thing was never before attempted, and that all the valuable matter which is to be found scattered in the different Medical Journals has not been regularly re-spread before the profession, so that a passing bird's-eye view might be had; for we are quite sure that a great majority of the profession are totally ignorant of the great mass of practical information which is constantly being published in one journal or another, simply because that information is in too *scattered* a form to be readily found by the active practitioner. He has to read too much to find the valuable matter which he wants, and probably his time, his habits, or his income will not allow him to do this.

Nothing would have been more easy than to have altered the words of the different authors so as to give the same information more in the words of the editor himself; but he aims more at being made useful to his brother practitioners than to run away with any honor which might belong to another.

It has therefore, been his endeavour to add as little as possible to the original articles—curtailing and condensing them, however, as much as possible, so as to be accommodated to the size of the present volume. For example, many of the articles which are here given, are very long ones in the journals from which they are extracted, and therefore every portion which is not strictly practical has been omitted, and only the most useful portions retained; and still the articles remain in the words of the authors or the reviewers; which will be found a great advantage, as the practical man only wants facts and observations to be laid before him, and he will always be able to draw his own conclusions as well as when assisted by the opinion of a second or a third person.

It has also been the editor's wish to refer particularly to every article in the original works, so that the reader may easily refer to the place and read for himself; and he trusts that this compilation will only stimulate his professional brethren to read more than ever the excellent publications here referred to.

The editor feels himself called upon to express his warmest thanks to the editors of the following works in particular, viz: "*London Medical Gazette*," "*London Lancet*," the "*Edinburgh Medical and Surgical Journal*," the "*London Medico-Chirurgical Review*," the "*British and Foreign Medical Review*," the "*Dublin Journal of Medical Science*," the "*New York Journal of Medicine and Surgery*," the "*Dublin Medical Press*," "*Guy's Hospital Reports*," the "*Royal Medico-Botanical Transactions*," the "*American Journal of the Medical Sciences*," and the "*Medical Times;*" and he hopes that he will be permitted and encouraged by these gentlemen to continue this half-yearly selection from their valuable works, as it will not in the least interfere with either the sale or the usefulness of their own works; and will moreover extend the information which they contain to a large class of practitioners who only peruse one or two of them at most, and who consequently arrived at the information contained in the rest in a circuitous way. But it may be asked, what right has the editor to suppose that the Medical profession will place confidence in his judgment in the selection of the information herein contained? His only answer would be (and it is mentioned very reluctantly, and as an apology to the Medical public for the present undertaking), that within the last ten years he has been

called upon to attend at their own homes above fifteen thousand separate cases—cases of all descriptions, Medical, Surgical, and Obstetrical; and that considerably above two thousand of these cases have been in the practice of Midwifery; and this number is quite exclusive of those patients which have attended at his own house. He feels that this circumstance alone is a sufficient guarantee for the judiciousness of any selections of practical information which he may lay before the public.

The work is more particularly adapted to men engaged in active practice, and who are presumed to be well acquainted with the pathology and symptoms of disease; for it would not be possible to condense into so small a volume every thing which is written in the Journals concerning the nature of diseases, and, therefore, the *treatment* has been chiefly attended to.

Some of the most interesting articles are from Journals which the reviewers themselves have extracted or condensed from other works; and as the editor could not have curtailed the original articles any better, nor perhaps so well, he has generally extracted them *verbatim*, as they also contain the valuable remarks of many of the talented editors in addition to the original matter; and the reader will easily distinguish which part of the different articles belongs to the reviewers and authors, and which to the editor—the observations of the latter being included in brackets.

The work has been arranged under as few heads as possible; for example, under Practical Medicine are arranged articles on Pharmaceutical Chemistry, Materia Medica, Toxicology, &c., as they do in fact refer to the Practice of Medicine, and it would have been difficult at all times to know under what head to insert some articles which refer both to one and to the other.

Park Square, Leeds.

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PRACTICAL MEDICINE.

PRACTICAL MEDICINE,

&c., &c.

Art. 1.—ON THE EMPLOYMENT OF SEA SALT (Chloride of Sodium) IN PULMONARY CONSUMPTION, SCROFULOUS AFFECTIONS, &c.

By M. Amede Latour.

M. Latour was first induced to give a trial to this remedy in phthisis from its reported efficacy in preventing or curing pulmonary complaints among the lower animals. A great mortality prevails amongst the apes and monkies confined in menageries, chiefly from pulmonary complaints; and the proprietor of a menagerie found, that by the free use of sea salt, he was enabled to preserve these animals in health for seven or eight years; and, even after a cough had manifested itself, the administration of the salt was followed by a rapid cure.

M. Latour relates three cases in the human subject, in which the administration of salt appears to have been followed by the happiest results. In one of the cases, the disease had gone so far that there was distinct cavernous rattle with pectoriloquy, muco-purulent and purulent expectoration streaked with blood, great emaciation, hectic fever, &c., and yet the patient made a perfect recovery at the end of a few months, the sea salt having been given uninterruptedly for sixty days.

M. Latour directs a particular regimen to be followed during the treatment. The aliment should consist almost exclusively of beef or mutton grilled or roasted, of good rich soups, or animal jellies. The patient should partake of these in small quantity at a time, but often, and should drink a little good old wine diluted with water. Every fine day, when the sun shines, and during its warmest period, the patient should take gentle exercise in the open air; and his chamber should be well aired twice or thrice a day. Flannel is recommended to be worn next the skin.

The mode of the administration of the salt is as follows:—Half a drachm to a drachm of the chloride of sodium is administered daily, either in a glass of beef-tea or in some pectoral infusion, or if this should excite cough, it may be given in divided doses made up into bread pills, drinking a little beef-tea afterwards. It is best to commence with small doses, as the sudden introduction into the system of such a powerful stimulant, is apt to be followed by congestions of blood in the digestive organs or lungs. A few cresses are recommended to be eaten once or twice every week, after having been well sprinkled with common salt, but no vinegar or oil is allowed with them. To relieve the pains in the chest, and the burning sensations of which the patient complains, instead of the usual pectoral drinks he prescribes the following:—Carrots are to be well boiled in a moderate quantity of water; they are then to be well beaten, and passed through a seive. The fluid which

passes through is then mixed with fresh milk, sweetened with a small quantity of sugar, and flavoured with orange-peel. This compound the patient drinks at his own discretion. In general, some thirst is at first caused by the administration of the sea salt, and for this M. Latour directs a weak infusion of gentian flavoured with orange-peel.

Gazette des Medecins, Practiciens, 1839, *and Edinburgh Med. and Surg. Jour., January,* 1840, *p.* 245.

[May not this be confirmed by the circumstance, that few cases of consumption occur in Egypt, and it is said that among the Arabs, scarcely a case of the kind has been known; chiefly, it is supposed, from the atmosphere being saturated with saline vapour. It is said that "about Alexandria the saline vapour condenses on the walls of the houses in small crystals of nitre, common salt, and muriate of ammonia." The soil is everywhere coated with saline particles, and yet consumption is almost a stranger in the land. The same may be said of our own Channel Islands—Guernsey, Jersey, Alderney, &c., and here, too, consumption is comparatively rare.]

2.—ON DISORDERS OF THE STOMACH.

By Dr. Debreyne.

[Dr. Debreyne condemns the too prevalent system of practitioners, of treating all or most stomach disorders as chronic irritation, or inflammation of the gastric mucous membrane. A disciple of the physiological or Broussaian school confounds many of the most important symptoms of chronic affections of this organ with his "acute or chronic gastritis," and treats his cases accordingly by the application of leeches, &c., to the epigastrium, which only give temporary relief.]

Now almost every pain—whether phlogistic, rheumatic, neuralgic, or even atonic—is for a time relieved by the application of leeches in the neighbourhood of the affected part. In neuralgic and atonic pains, the relief is, however, delusive and only temporary; for next day, or even sooner, they are as severe as ever. If this mode of treatment be therefore continued, the patient's strength is more and more exhausted, and the disease probably aggravated at the same time.

In treating of *genuine* chronic gastritis, he dwells particularly on the assistance which may be derived, in discriminating the disease, from watching the effects of different sorts of food upon the severity of the symptoms. "Whenever," says he, "a farinaceous and milk diet is well borne, or at least is better borne, and causes less uneasiness than any form of animal food, even that of simple broth, we have strong reason to suspect the presence of some degree of inflammation. This symptom may be considered as a sort of touchstone, by means of which we may in general distinguish the irritative from the purely nervous and atonic affections of the stomach. True, it is not an infallible indication: but it is certainly one of the greatest value to assist our correct diagnosis. Of this we may be assured, that whenever an animal diet suits a patient better than a vegetable one, the case is not one of gastritis."

Now for a word or two respecting the treatment of *genuine* chronic gastritis.

As a matter of course, local detraction of blood, spare diet, refrigerants, &c., are to be used. But if after a due employment of these means, the pain of the stomach still continues, we are not to persevere in the same practice indiscriminately. The pain may now be rather of a nervous than of an in-

flammatory character; and if there be good reason to suspect this, a mild opiate, in a mucilaginous vehicle, will be far more serviceable than further bleedings.

Opium is, however, on the whole, much less efficacious in gastritis than in enteritis or in dysentery. We should not persevere in its use, if the pain does not yield in the course of two or three days. Under such circumstances, let a blister be applied upon the epigastrum. Should the pain resist this as well as the opiates, we may then regard it as of an atonic character. Attention to the effects of food, animal, and vegetable, will assist our diagnosis in this respect, as already explained.

Small doses of rhubarb or calumba, either alone or conjoined with sedatives, such as hydrocyanic acid, minute doses of morphia should now be tried. A low feverish state is apt to follow a too long protracted use of depletory and debilitant remedies.

Atony of the Stomach.—This disease is not of unfrequent occurrence, especially in women affected with leucorrhœa, chlorosis, anæmia, &c.

It is unnecessary to particularise its symptoms, as all the phenomena well known under the too comprehensive term, "dyspepsia" may be present. Even pain, aggravated too on pressure, in the epigastrium, is not uncommon. One important character is, that the distress of the stomach is usually increased by the use of vegetable and farinaceous food, and relieved, more or less, by a generous diet of animal meat, wine, &c.

Neither opiates nor antiphlogistics are suited to such a case: tonics alone are the proper remedies.

There may indeed be a certain degree of inflammatory or of neuralgic pains blended, so to speak, with the atonic pain, which is the prevailing element in the cases now under consideration; and then, indeed, it will be necessary to modify our treatment, combining the use of occasional leeches and anodynes with the tonic plan. An animal diet of the lighter and white meats at first and subsequently of the stronger ones, the use of some mild ferruginous preparation, of quinine, or some other vegetable bitter, such as gentian, calumba, aloes, &c., in the form either of infusion or of wine, constitute the most approved practice.

In a variety of gastro-atony, characterised by frequent returns of vomiting, there is no remedy more useful than calumba in the form of powder, five to ten grains taken three or four times a day. If the epigastric uneasiness should be troublesome, a mild opiate preparation may be mixed with it.

The patient should be advised to take but little of any watery drinks, such as tea, gruel, &c. Seltzer water is a good beverage.

Gastrodynia and Gastralgia.—The first of these terms should be applied to such pains in the stomach as are of a rheumatic, and the second to such as are of a purely neuralgic nature. The pain in both is almost always much more severe than in genuine chronic gastritis; and yet it is usually not increased, but is often relieved, by pressure on the epigastrium. Moreover, there is no feeling of heat, nor is there much thirst, and the pulse is not quickened. Generally there is but little derangement of the digestion; and almost all kinds of food may be taken, without any decided effects either as to increasing or mitigating the pain. In genuine gastrodynia we can usually discover that there has been the retrocession or transport of a previous rheumatic affection of some of the joints, &c. Hence a certain degree of phlogistic action may be co-existent with the pain;—not so, however, with *gastralgia.*

As to the treatment, opiates are, on the whole, the most efficacious remedies. In many cases they require to be administered in large doses. Some of the diffusible antispasmodics, such as æther, camphor, the liquor Hoffmanni, &c., are often useful. The sub-nitrate of bismuth is an admirable preparation in numerous cases. Sometimes, more especially where the dis

ease is of a rheumatic character, the use of blisters, applied either to the epigastrium or to one of the lower limbs, is necessary.

We shall close these remarks with a few words as to the use of opium in painful affections of all sorts of the digestive canal. There is no remedy so generally beneficial, nay, even necessary, as opium in such affections; as, for example, in cramps, colicky pains, dysentery as well as in gastralgia. In some cases, it must be associated with blood-letting; in others, with laxatives and emetics; and in a third set, with bitters and tonics. Medical men have been, especially during the last thirty years, far too timid in the employment of this admirable remedy in the treatment of disease. They forget that often, very often, nature only requires to be freed from present pain, to enable her to restore a disordered function to a healthy condition, and a suffering organ to the regular performance of its duties without distress or inconvenience.

Revue Medicale, and Medico-Chirurgical Review, Jan., 1840, *p.* 233.

[In Dr. Debreyne's treatment of gastrodynia and gastralgia of the stomach with opium, he might have referred more particularly to the prussic acid, which, when *properly prepared and preserved*, we have found so efficacious in this country, and especially when combined with small doses of the acetate of morphia, as the eighth or the sixteenth of a grain, three or four times a day. We have seldom or never had occasion to give *large* doses of opium in these cases, as we almost invariably succeed with these minute doses of morphia, when properly persevered in, and and assisted by proper regimen. And when we fail with these remedies, we have recourse to Dr. James Johnson's favourite remedy of nitrate of silver, given in small doses, which will be found a most valuable, and we might almost say certain remedy in such cases—and, therefore, we are the more surprised that no mention of it is made here by Dr. Debreyne.*]

3.—ON DIURESIS AS A REVULSIVE ACTION IN DISEASES OF INFANTS.

By Dr. Simon.

Dr. Simon prefaces his remarks by alluding to the frequent inactivity, and sometimes, the almost complete suspension of the functions of the bowels and kidneys, while the system of the child is suffering severely from dentition. Whenever the intestinal or urinary excretion is much diminished, the febrile irritation of the system, it is well known, is invariably greater than usual; and, if this state things be permitted to continue without relief, there is much risk of alarming cerebral symptoms quickly making their appearance. The practitioner will, therefore, do well to pay particular and uniform attention to the condition of the bowels and kidneys in all the diseases of infancy and childhood. The simple question as to the quantity and colour of the urine—and, by the bye, we can much better trust the report of nurses about the state of the urine than we can about that of the alvine evacuations—will often enable us at once to form a correct opinion as to the general or constitutional health of our patient. As long as the kidneys act freely, there is little or no risk in the symptoms of mere dentition, however severe and distressing these may be. The same remark is, we believe, strictly applicable to the prognosis of most cerebral affections in children. When the urinary se-

* For some interesting observations on the use of the nitrate of silver see a paper in the May number of the Dublin Medical Journal; referred to likewise in this work. (*See table of Contents.*

cretion is scanty and deep coloured, the circulation seems to be both oppressed and excited; and the rapid, on some occasions, almost instantaneous mitigation of the alarming symptoms, after a copious discharge of water, is well known to all experienced practitioners. To promote this critical diuresis, a purgative, composed of senna and salts, and then frequently repeated doses of nitre, are the simplest and most efficient means that can be resorted to.

The chief danger of dentition is referable to the vascular excitement of the brain. Nor is this wonderful, when we consider that for several successive months there is a continued, and often very severe irritation in its immediate neighbourhood. The pain attendant upon the cutting of merely one tooth, in our adult years, may teach us to form some idea of the suffering of an infant during the period of its first dentition.

Now it is a common observation that almost all head-aches are most promptly relieved by whatever stimulates the kidneys to throw off a quantity of urine. When this takes place, the system feels at once relieved of a load or oppression which seemed to clog all its energies, and the mind, as well as the body, becomes more light and vivacious. We are thus led by the experience of our own feelings, to anticipate the benefits which must attend the stimulation of the kidneys in the various affections of children arising from teething.

On the whole, we do not think that there is a more important sign to be attended to in the management of children, during the first two years of their life, than that afforded by the state of the urinary secretion.

Before closing these remarks, we may allude to the notable effects which diuretic medicines sometimes exert on the progress of hooping cough. The administration of nitred drinks and of minute doses of digitalis, seems often to promote the crisis of the disorder in its earlier stages; and, in its more advanced and chronic form, the use of tincture of cantharides has been recommended by Dr. Watts and others, as one of the most efficient antidotes. The excitement of the urinary viscera produces a powerful revulsion on the neurosthenic condition of the gastro-pulmonary apparatus, and thus seems to act as a derivative of the morbid action.

In fine, the kidneys become, in numerous cases of disease, the seat of an active eliminatory process, of which the skilful physician will avail himself in the treatment of dentition and of various other affections to which children are especially liable during the first two years of their lives.

Bulletin Gen. de Therapeutique, and Medico-Chirurgical Review, Jan., 1840, *p.* 209.

4.—TREATMENT OF ACUTE RHEUMATISM BY OPIUM.

By Dr. Corrigan.

The most important rule to be remembered in employing opium for the cure of acute rheumatism is, *that full and sufficient doses* shall be exhibited. I have heard of opiate treatment having disappointed some who have tried it. On inquiry, I have learned that in those cases it has been given only to the extent of a grain every fourth or every sixth hour. This is not "the treatment of rheumatism by opium;" it is making the patient worse than before —it is inflicting on the patient the mischief arising from the stimulant effects of the drug, and withholding from him all the benefits of its sedative influence. The opium should always be increased in dose, both in frequency and in quantity, until the patient feels decided relief; and should be then kept up at that dose until the disease is steadily declining. The first indication that tells the practitioner he has reached the proper dose, is the statement of the patient, who, in reply to an inquiry as how he has passed the night, probably

says that he has not slept, but that he is free from pain and feels comfortable. This effect having been attained the opium may then be continued in repetitions of the same dose as to frequency and quantity. Clarke's Case, No. VIII., shows the rapidly good effects of the large doses. A relapse set in: he got two grains of opium every third hour, uninterruptedly for twenty-four hours. He took sixteen grains of opium within twenty-four hours, and the relapse was suddenly cut short. In Rooney's Case, No. III., in the first day eight grains of opium were administered; the dose was then increased to twelve grains within the twenty-four hours for the second, third, and fourth days; and on the fifth day he was taking bark. In Dr. Aldridge's Case, the quantity taken in a fortnight amounted to about 200 grains. I think about ten or twelve grains in every twenty-four hours will be found the average quantity required. The tolerance of the remedy is a remarkable feature in the treatment, and may, I think, be fairly adduced as an argument in favour of its propriety. The head is not affected by the large quantity of opium administered. This is remarkably shown in Dr. Aldridge's Case, No. VI., where the head was not injured by the opium, even though there had been previously a tendency to derangement of cerebral functions in all previous febrile affections. There is another singular circumstance connected with the exhibition of opium. It is the occurrence of diarrhœa while the patient is using the opium even in full doses; in some instances, the diarrhœa becoming so troublesome as to require starch enemata, or chalk mixture, with kino. It is seldom necessary to purge the patient while administering the opium; indeed the pains are sometimes brought back by the administration of a purgative, either from the patient catching cold in rising from the bed, or from the irritability produced by the action of the purgative. The patient's bowels, if they have not been constipated in the commencement of the attack, may be not only safely, but with benefit, not disturbed more than once in two days.

In most cases, Dr. Corrigan applies embrocations to the affected joints—warm spirit of turpentine, or camphorated spirit, or simple decoction of poppy-heads, or when only slight stiffness, with little or no swelling remains, a liniment of equal parts of ol. terebinth. and ol. camphorat., with one drachm of sulphur to each ounce of the liniment.

There arises in the progress of a case of acute rheumatism a stage that is sometimes perplexing. The fever is very much abated, the skin is covered with almost constant perspiration, even sometimes to the degree of producing a military eruption, and so profuse in quantity, that the patient, when the clothes are raised, steams like one in a vapour bath, and the skin becomes clammy, pale, and soddened; the pains become erratic, and the pulse becomes quicker and smaller; in such a stage and with these symptoms, the conjunction of the sulphate of quinine with opium is the combination that I think will be found most beneficial. K's Case, No. V., is an example of such as I have described, and shows the good result of the exhibition of the the combination of quinine and opium in that particular stage. Another remedy of considerable efficiency when the acute stage is passing away, is the mist. guaiaci. The preparations of guaiacum have been an old and favourite popular remedy in rheumatism and have fallen, perhaps undeservedly, into comparative disrepute. As it is not my wish to travel beyond the acute form of the disease, I shall make no observation on the use of the hydriodate of potass, or of any of the remedies adapted to rheumatism when passing into a chronic state. There is one form of acute rheumatism in which the opiate treatment will cause disappointment, should the practitioner trust to it alone. It is that form which we sometimes meet with in persons whose habits of living, and perhaps hereditary tendency, give a predisposition to gout, and in whom, when rheumatism does appear, it is not genuine rheumatism, but a combination of gout with rheumatism.

Dub. Med. Journal, Nov. 1838, *and Med. Chir. Review, Jan.*, 1840, *p.* 266.

[We, in common no doubt with almost every practitioner, have frequently met with the same effects of opium in producing diarrhœa, which is the more singular, when we remember the almost invariable opposite effect of this drug; but it has generally arisen from the *continued* use of it for some time, when no doubt the sphincter muscle loses its power from the effects of the opium upon the nervous system.

Whilst we are on the subject of rheumatism, we cannot help referring our readers to the admirable treatment adopted with so much success by A. L. WIGAN, Esq., of Brighton, and since the publication of his article, by ourselves, viz.—the employment of the Powdered Colchicum Root, in large and rapid doses. Mr. Wigan says].

The powdered root of colchicum is the specific on which I depend. It is an old remedy, but the mode of administration is new, and entirely my own. On no one of the many occasions on which it has been used, have I seen the slightest injurious consequence; and I do not now hesitate to pronounce it the most easily managed, the most universally applicable, the safest, and the most certain specific in the whole compass of our opulent pharmacopœia; the mode of exhibition being an effectual regulator of its influence, adapting it accurately to the varying temperaments of different patients. Administered in the way I prescribe, and with the limitations stated, I feel quite confident that no one will be disappointed in the results to be expected from it. No doubt there may be complications of this disease, which may render other measures advisable; cases of phlethora, or of inflammatory action, so decidedly marked as to leave no doubt of the propriety of taking away blood. It may be so; I have seen none such, at least none in which I have thought it necessary to use the lancet, though I see no disadvantage in erring on the safe side, and just relieving the tension of the blood vessels by moderate depletion. Large bleedings I believe always to be injurious: they seem to me to aggravate the tendency to metastasis. The cases which require bleeding must be extremely rare, since not one has presented itself to me during the last six years. I am sorry to say, that when this disorder has gone on for some time, when it has been allowed to spend its violence on the articulations and especially those of the vertebræ (the most frightful form of the disease,) during a fortnight or three weeks, the remedy is by no means so effectual. Still it has a great influence in alleviating the pain and in shortening the duration of the malady, although the transition from intense suffering to perfect ease is less sudden and decided. I have uniformly remarked, that the more violent the attack the greater the number of articulations under its influence—the higher the fever, and the more general the disturbance, the more speedily and the more perfect is the cure. Were I to give the details of some of the cases, I should not obtain belief, so much would the statement resemble a quack-doctor's advertisement. I will however, venture to assert, that on many occasions I have seen the patient one day unable to turn in bed, with ancles and wrists so swollen and inflamed, and even the vertebræ affected to such a degree, that he has entreated me to walk gently, as the mere shaking of the bed produced an agony of suffering; I have seen, I say, a patient in this state, and thirty-six hours afterwards not only perfectly free from pain but able to walk across the room without assistance.

If the bowels be loaded, I begin by an enema of decoct. aloes, but this does not delay the use of the colchicum. The dose, eight grains every hour taken in the medium most acceptable to the patient—plain water, sugar and water, apple tea, ginger tea, or other analagous fluids, changing them from time to time, even with the successive doses, if necessary according as the stomach is more or less irritable, or the palate more or less capricious. The point of saturation, as I call it, (for the want of a better term,) is very uncertain varying so much with different individuals, that although the usual quan-

tity is eight or ten doses, I have known some take fourteen, and others unable to bear more than five. In every case it is to be repeated till active vomiting, profuse purging, or abundant perspiration take place; or at least till the stomach can bear no more. If a slight nausea comes on after three or four doses, (I have never seen it so soon as the fourth,) a quarter of an hour's delay may be allowed. A lump of sugar dipped in brandy, or eau de Colonge, a wine-glass of soda water, or any thing else the patient wishes for, in small quantity may be given. Sometimes a small slice of lemon kept in the mouth will turn away the nausea, and enable him to bear a few more doses; the main object in all cases being to get into the stomach the largest quantity that it can be induced to receive. Even two doses taken at once would be rejected by a patient, who will thus gradually bear a dozen. The most usual course of things is this; at the end of the sixth or seventh dose a slight nausea comes on; by keeping quite still, turning away the thoughts by conversation, or listening to an amusing book, coaxing the palate with a slice of lemon, a clove, or some such thing, three or four more doses can be received when the disgust becomes perhaps unconquerable. After this there is generally sound sleep, with occasional nausea on waking. The pain ceases, but the more active effects of the colchicum do not take place for some hours after the last dose. Distressing as is the state of the patient when under the full influence of the medicine, it still does not exceed an ordinary sea-sickness; and when this has been endured for a few hours, it is succeeded by the Elysium. The inflammation of the joints subsides, and they resume their natural size with miraculous rapidity. The acidity of the perspiration ceases as well as the peculiar odour, which enables the experienced practitioner to recognise the disease on entering the room, before he has asked a single question. As soon as a cup of souchong tea can be retained, a sound sleep comes on, from which the patient awakes perfectly well. When circumstances will admit of it, I prefer to give a breakfast of bread and butter and tea only, very early in the morning, and two hours afterwards commence the colchicum. No more food will be required that day, but tea may be given abundantly, with bread sopped in it, if required. It will be well to indulge the returning appetite very sparingly on the day following, on which however, we may allow a small snap of devilled meat, and rice boiled plain as for curry, which will generally be the things most acceptable to the stomach. A small quantity of good curry itself is not objectionable to those who have been accustomed to that luxury. In the subsequent treatment I have no reason to think that any precaution is necessary. The patient may resume his ordinary diet as soon as the appetite dictates. I have never seen a relapse.

The colchicum, it is obvious, should be preserved with care. The best mode, I believe, is to grind it, at the proper season, with twice or thrice its weight in old sugar into an impalpable powder, when, should it accidentally become damp, it is safe from injury.

It is better if possible, that the patient should not be aware of the direct effects expected, until they take place, in order that the imagination may not anticipate and interfere with the process.

Lancet and Med. Gazette, June 30, 1838; *and British and Foreign Medical Review, Oct., 1838, p.* 556.

5.—THE USE OF ACETATE OF MORPHIA IN ARTHRITIS AND NERVOUS AFFECTIONS.

By M. Vincent Cristin, Physician to the Hospital of St. John, Turin.

The following is Dr. Cristin's method of administering the acetate of morphia in these affections. Dissolve one grain of acetate of morphia in four

ounces of distilled water, and add one ounce of syrup of gum arabic. A spoonful of this mixture to be taken every hour. When the pains are relieved, or sleep is about to commence, it should be given every two hours only, or suspended altogether; depending upon the narcotic effects produced. During its administration the patient should avoid fluids.

A woman aged sixty, was afflicted with arthritis in the extremities; there was acute pain upon motion, hard pulse, burning heat of skin, &c., &c. The acetate of morphia relieved the pain, procured sleep, removed the fever, caused profuse perspiration and diarrhœa, with abundant secretion of urine. Opium excites perspiration, but diminishes the other secretions. Acetate of morphia is therefore the preferable agent.

Nervous pains, such as frontal neuralgia, sciatica, cephalalgia, and syphilitic pains, have all yielded to this remedy.

Repertorio Medico-Chirurgico del Piemonte, and British and Foreign Medical Review, Jan., 1840, *p.* 252.

[We can also bear testimony to the good effects of this remedy in almost all neuralgic cases, but it seems necessary to keep the patient under the complete influence of the medicine for a considerable time. We have frequently been obliged to keep up the effects for several days on the small nerves of the face, &c., and for a much longer time, even weeks, in sciatica, and other large branches of nerves, but have seldom failed of success eventually, except in old and very obstinate cases. Dr. Cristin gives only the tenth of a grain of the acetate every hour, but we generally have found it necessary to give much larger doses without any other bad effect than severe sickness, which, however, is easily abated by creosote, or stimulants, as the spt. ammon. comp., &c. We give one-fourth or one-sixth of a grain every hour or two, in severe cases, till the system is completely under its influence, and then keep up its effects by smaller doses, and less frequently repeated.]

6.—ON THE USE OF ARSENIC IN CHOREA.

By D. M. Reese, M.D., Prof. of Medicine, Albany College, New York.

These results of experience have led me successively to test the comparative merits of the various other remedies which have been reported as successful, as the rubigo ferri, cuprum ammoniacum, sulphate and flowers of zinc, oxide of bismuth, camphor, electricity, nitrate of silver, &c., and after very considerable opportunities, I have learned to rely upon the tonic powers of *arsenic* in preference to any and all other medicines of this class; and having never known it to fail in effecting a radical and permanent cure, I feel great confidence in recommending it to the profession in all those cases in which the tonic plan is decided upon, either with or without preliminary medication. The arseniate of potash, as existing in the formula of Fowler's solution, is the preferable mode of exhibition, and its dose should be graduated according to the ability of the stomach to receive it without nausea. In the most numerous subjects varying from seven to sixteen years of age, six or eight drops should be given night and morning, gradually increasing its dose and frequency. Adults may take ten drops increasing to fifteen, and even twenty, three times a day, and in all cases it should be persevered in for a week or more after all the spasmodic symptoms have disappeared. The only unpleasant effects are nausea or vomiting if the dose be too large, and occasionally a tumefaction of the head and face if too long persisted in. On either of these effects being produced, the medicine should be discontinued for a few days, and then resumed in a diminished dose. With these pre

cautions, I have, for a number of years, employed this remedy in over two hundred cases of chorea, without ever having witnessed any of the untoward results upon the constitution said to follow the exhibition of arsenical preparations. So far from any of the sequelæ which are apprehended by the alarmists, my patients have, under its use, not only recovered from chorea, but many of them seem to have since acquired vigorous constitutions and improved health. I have used it in infancy, in delicate females during pregnancy, and under circumstances supposed to forbid its employment by many, and I have never once seen cause to regret its exhibition. But while I thus dwell upon the value of arsenic as a remedial agent in chorea, I have not failed to superadd auxiliary treatment, and hence nutritious diet, active exercises, cordial drinks, and the cold bath, both plunging and showering, have all been usefully employed. And in the examples, comparatively few, in which counter-irritation has been indicated, I have obtained most favourable results by the aid of rubefacients, blisters, setons, issues, and the eruption of the tartrate of antimony, applied to the spine. But I have never had occasion for active depletion, even by purgatives, although when constipation exists in connexion with chorea, or where there has been present the suspicion of worms, I have interposed a cathartic or anthelmintic, while, at the same time, persevering in the tonic treatment.

New-York Journal of Med. and Surg., and British and Foreign Medical Review, Jan. 1840, *p.* 269.

7.—ON THE INHALATION OF CONIUM AND IODINE IN TUBERCULAR PHTHISIS PULMONALIS.

By Sir Charles Scudamore.

[The author of this paper states that he has tried the following method of inhalation in phthisis and bronchitis, sufficiently to enable him to recommend it very strongly to the profession. He denies that the inhalation of conium and iodine in either of the above named diseases, irritates the lungs; on the other hand, he says that the patient looks forward with pleasure to the time when the process is to be repeated. He disagrees with Laennec in some points, and thinks that the *early* stages of phthisis may be cured by this mode of treatment, and goes on to relate cases where a cavity was clearly indicated, and where pectoriloquism was most evident, and yet the patients recovered by means of inhalation. Indeed some of his cases were so clearly cases of incipient phthisis, according to his description, that we cannot help placing dependence upon his treatment in some measure, however contrary to the common feelings of the profession. Some, indeed, relapsed and eventually died after an interval of some years; others have not hitherto relapsed, and are yet in perfect health. The author then goes on to relate his method, and the ingredients of his mixture, combining, however, at the same time, other treatment of a general kind. He says:]

I cannot, I think, too often repeat that, while I claim for the inhalation so great a regard, I consider it to be only one part of the treatment required. The additional constitutional means embrace a very wide consideration. The local external treatment of the chest by proper means of counter-irritation, and by lotions and frictions, is a very important part of management.

I have never seen, from an active remedy, so large a proportion of benefit, with so small a proportion of disagreement and inconvenience, as from the inhalation of iodine and conium. The method also is to be considered: and I may here remark, that many excellent remedies have fallen into odium and neglect, at different periods, from the error or abuse of their application. I

am careful that all the ingredients which enter into the composition of the inhaling mixture are perfectly pure. I recommend the following formula:—

℞. Iodinii puri; Iodid. Potassii, aa. gr. vi.; Aquæ Distillat. ℥v. 3vi.: Alcoholis, 3ii. M. fiat mistura, in inhalationem adhibenda.

I now always prefer to add the conium at the time of mixing the iodine solution with the water; and it should be a *saturated* tincture, prepared with the most genuine dried leaves. In the commencement of the treatment, I advise very small proportions of the iodine mixture; for example, only from half a drachm to a drachm for an inhaling of eight or ten minutes, to be repeated two or three times a day. Of the soothing tincture, I direct half a drachm—which I usually find sufficient; but it may be increased if the cough be very troublesome. I soon augment the quantity of the iodine, and progressively from 3j. to 3iv; but also, then prolonging the time of inhaling, I divide the iodine dose, putting two-thirds at first, and the rest after the expiration of seven or eight minutes. If the temperature of the water be measured by the thermometer, it should be 120° Fahr., as being the most favourable for volatilising the active principles of the iodine and conium, mixed with some watery vapour; but the approximation will be sufficient, if equal parts of boiling and cold water be used; with which the inhaler is not to be quite half filled. Invariably, however, care should be taken to prepare the bottle for this heat of water, by first washing it out with some tepid water.

During the process, the inhaler should be kept immersed in a jug, containing water of rather a higher temperature than 120°

It is of the utmost importance that the strength of the inhaling mixture should be considered in relation to the particular case. The feelings of the patient will be a great guidance; he should have the sense of relief, and not of inconvenient irritation produced. The cough arising occasionally during the process is not an objection; but if it be irritable afterwards, it shows that it has been used too strong. There is a certain stage of the tubercular disease, when over-excitement, from employing the iodine in too great quantity, might hurry on the softening process too quickly. It is here that the treatment demands the greatest judgment. In every case one of the following events may be expected to happen: either that the tubercular irritation will be arrested and gradually removed or be arrested and suspended, but not cured; or pass on to the softening process, which terminates in the production of an excavation. In all these different states of disease, I advise the inhaling treatment to be employed.

It is my belief that this direct and very accurate mode of applying this powerful medicine, iodine with conium, induces a new action in the vessels and nerves of the lungs, which is calculated to supersede the diseased action. I also assign much effect to the stimulation of the absorbents, and have been led to believe that tubercles have in this manner been actually removed.

With a well-constructed glass inhaler, I find all the satisfaction I can desire. The bottle should be large, and the tubes capacious. The one issuing from the bottles should be upright, passing off in a gradual slight curve, so that the vapour shall not be much cooled in the course of its progress; the ingress tube should dip very near to the bottom of the bottle, that all the air so introduced may receive impregnation. The patient must be desired to inhale by using at the same time suction, and a pretty full inspiration, then to drop the under lip from the mouth-piece and make a free expiration; so conducting the process by pausing, and, if he like, little suspensions, in order that he may not experience any of the fatigue which would certainly

happen if breathing quickly, or using an inhaler with small tubes, or with too much water in the bottle.

London Medical Gazette, Feb. 7, 1840, *p.* 756.

8.—ON THE PREVENTION OF TUBERCLES.

In a letter addressed to the Royal Academy of Medicine, M. Coster announces that, from certain experiments which he has made, he hopes to prove:—

1. That it is possible, even in the face of predisposing causes, to prevent the development of the tubercular diathesis.

2. That even where the formation of tubercles has commenced, their progress may, in a great number of cases, be arrested.

The following are a few of the experiments upon which M. Coster has built up his hopes:—

Two years ago he placed a number of dogs, rabbits, &c., in the circumstances most favourable to the development of the scrofulous diathesis. Thus, many of the unfortunate animals were shut up in dungeons, without light, incapable of moving, and exposed to a moist cold, by means of wet sponges which were hung up in the cages. Some of the animals placed in these conditions were fed on their ordinary diet; others were fed with ferruginous bread, containing ½oz. of carbonate of iron to the pound. All the former became ill, the greater part tuberculous, but not one of those fed on the bread containing iron presented a trace of tubercles.

Bull. de l'Acad., and Lancet, Feb. 15, 1840, *p.* 772.

9.—ON THE INFLUENCE OF MALARIOUS ATMOSPHERE IN THE PREVENTION AND CURE OF PHTHISIS PULMONALIS.

By Horace Green, M.D., of New-York.

[Dr. Green relates several cases which seemed to be phthisical, and which recovered in a malarious atmosphere. But the most experienced practitioner may often be mistaken in his diagnosis in the early stages of this fatal malady, and therefore we should be cautious in pronouncing a case to be consumptive, unless it have advanced sufficiently far. The following observations, however, seem valuable and based on facts:]

Whitehall, in Washington County, N. Y., is about twenty miles west of Rutland, and contains about the same number of inhabitants. It is situated at the mouth of Wood Creek, which empties into Lake Champlain. This town is bounded on one side by low, marshy grounds, which are filled with stagnant waters, and from which, during the summer months, malarious exhalations are constantly rising; producing in the vicinity, an abundance of intermittent and remittent fevers. Indeed, so common are intermittents here, that the remark has become proverbial: "To go to Whitehall, is to get the ague and fever." Yet consumption is seldom or ever known in Whitehall. I have been at much pains in making inquiry, and I have not been able to learn that a single unequivocal case of *indigenous* phthisis has occurred in Whitehall during the last ten years. All the other lake towns in that region so far as I have been able to ascertain, where intermittents prevail, are equally exempt from pulmonary phthisis. From these facts, and others which I shall mention, I have been so well convinced of the incompatibility of consumption and intermittents, that, for several years, I have been in the practice of advising my consumptive patients to visit places where an aguish at-

mosphere prevailed. In many instances the result has been decidedly beneficial.

After relating several cases, he gives us that of his friend, Dr. Harris.

In November, 1836, Dr. H. caught a severe cold, which was followed by a cough, and in a week or two, with an expectoration of purulent matter. His cough continuing about three weeks from the attack, hæmoptysis supervened, and this was followed, for some time, with a bloody expectoration.

These symptoms of phthisis becoming more alarming, as the winter advanced, he relinquished his practice, and sailed for Mobile early in January, 1838. So unfavourable did his symptoms appear at this time, that one of the oldest and most experienced physicians of this city remarked to me, after taking leave of him, that "the Doctor would never live to return to New-York."

On the 14th of February he arrived at Mobile, where he remained several months: but went to New Orleans the June following, and from thence to Indiana; where, in August of the same year he had an attack of ague, which continued for some time. About eight months since, he returned to New-York in confirmed health, and renewed his practice.

This very day, November the 20th, Dr. Harris visited me, at my office, in good health, and related to me the facts in his case.

I could enumerate other cases which have come under my own observation, but will only allude to one other, the history of which was communicated to me by my friend Dr. Woodward, formerly Professor of Surgery in the Vermont Academy of Medicine. Sometime since, a young woman labouring under consumption—apparently in its confirmed, secondary stage—was brought to Castleton, the residence of Professor Woodward, to die among her friends. Her mother resided upon the borders of a small marshy lake, in the westerly part of the town—a neighbourhood where all new residents are sure to be affected with intermittent fever. Thither she was carried, and Dr. Woodward was called to attend upon her. He found her as he informed me, exhibiting every symptom of ulcerated lungs. Indeed, so apparently hopeless was the case, that the medicines he prescribed were merely palliative; and he informed her friends that no permanent benefit could be expected, in her case, from the adoption of any means.

Several months after this, being in that neighbourhood, he learned with surprise, that his patient was recovering; and on calling to see her, he, in fact, found her nearly restored. Her cough, and every other unfavourable symptom, had left her. Her health since has been permanently established.

Dr. Woodward gave it as his opinion, that in this case—as well as in some other similar ones with which he has been familiar—the persons were restored to health by breathing an intermittent atmosphere.

New-York Journal of Medicine and Surgery, Jan., 1840, *p.* 73.

10.—PRECIPITATED CARBONATE OF IRON.

The precipitated carbonate of iron is perhaps as good a preparation for internal use as any other, and the best mode of exhibiting it is, in my opinion, at the moment of precipitation, for a knowledge of which, I feel indebted to my friend, Sir James Murray. The formula is to add to one drachm of the bi-carbonate of soda, dissolved in four ounces of spring water, a drachm of muriated tincture of iron. The draught to be taken during effervescence, and repeated thrice a day. Although the quantity of carbonate of iron thus formed is not considerable, yet it is in such a state of minute subdivision, and combined with a solution of muriate of soda equally minute, (the saline most congenial to the system of red-blooded animals, as it renders the hem

atosine active and vivifying), that I always found it to answer the object of a chalybeate thus given much better than the large doses of from one to two drachms of the carbonate of iron, that have of late been recommended, and which I found few stomachs could bear. If there is ulceration, it is very generally improved by the same medicine; and I have seen many instances of that form of malignant disease termed lupus, which attacks the face, perfectly cured by the conjoined use of the internal and external exhibition of this preparation of iron. I formerly thought the phosphate of iron possessed superior advantages to the carbonate, administered internally; but now I think the carbonate given during precipitation answers every purpose of a chalybeate, without causing any derangement of the stomach.

MR. CARMICHAEL'S LECTURES.

Dublin Medical Press, March 4, 1840, p. 153.

[We refer our readers to an elegant preparation of iron, called "the Citrated Aromatic Wine of Iron," by Mr. Gore, of Limerick, which, we think is not much known to the profession, but which, from its pleasantness, might be more generally given to delicate patients. Mr. Gore says that]

It has been improperly termed *tinctura ferri aurantiaca*, through a *vinous* preparation of the per and proto-citrate of iron. The formula for its manufacture is contained in the *Pharmacopœia Wirtembergica*, published in 1798. The preparation itself possesses the most agreeable odour and taste of any medicinal compound ever introduced into practice. It is aromatic, carminative, and tonic, and I have no doubt will supersede the preparations in general use, when once it has been fairly tried.

Four ounces of iron filings, or what I think would be better, iron wire, are put into a stone mortar; with these are beaten up four Saville oranges, deprived of their seeds. Two or three days are allowed them to stand, having been placed in a wide-mouthed bottle: to them are next added ten ounces of Madeira wine, and two ounces of spirit of orange peel. After digesting for a fortnight the entire is expressed and filtered. A fine dark-coloured aromatic fluid is the result, highly chalybeate, and exceedingly agreeable, not only as to the taste left in the mouth, but the sensation it produces in the stomach. It is a compound of proto and per-citrate of iron, with perhaps a little tartrate from the wine, saccharine matter, mucilage, and essential oil.

Three parts of this preparation, with one of syrup of smilax aspera, form a compound which will not be rejected by the most delicate stomach. I have given it to children and young persons in various forms of disease with debility, and I have never found it disliked or rejected, but its repetition rather looked for. In strumous habits, where an excess of the white tissues constitutes a congenital evil—in passive uterine hæmorrhage; anasarca from general debility—chlorosis—malignant disease, in which iron is so highly extolled by Mr. Carmichael, and in those diseases which arise from a general deficiency of tone, this preparation would seem to me to be of exceeding utility, from its agreeable and chalybeate qualities.

Where the secretion from a relaxed state of the mucous membrane in chronic bronchitis exists, I have no doubt but it will be found efficacious, combined with Ipecacuan wine.

From having used this remedy repeatedly, as I obtained it from Mr. Stevenson's Limerick Medical Hall, where all that is new and valuable in pharmacy may be obtained, I can confidently recommend its use to the profession, and I have been led to do so because I consider it a valuable addition to the prescriber and because I wish to bring it under the notice of Mr. Carmichael, who has spoken in high terms of a preparation recommended to him by Sir I. Murray, from the facility with which it can be retained upon the

stomach—I mean carbonate of iron, in the act of precipitation, as made by dissolving bicarbonate of soda and muriated tincture of iron in water, which is taken in a state of effervescence. As the lemon contains a larger quantity of citric acid than the orange, I would suggest the addition of one lemon in the formation of the quantity before ordered, which I think might be an improvement as well as an addition.

Dublin Medical Press, April 29, 1840, *p.* 290.

11.—OBSERVATIONS UPON THE EFFECTS AND MODE OF APPLICATION OF REMEDIES.

By JOHNATHAN OSBOURNE, M.D., of Dublin.

HEMLOCK.

Even the extract, imperfect as it is, has an effect in appeasing the pain in cancerous affections of the uterus, and that without exerting sensible narcotic powers, which almost excuses Stoerk for the error, into which he fell in proclaiming it as a cure for cancer. I have applied it externally, and given it in such cases, sometimes without effect, but sometimes with remarkable alleviation of pain after opium had failed; and never observed any ill effects except in one case of a woman labouring under scirrhus uteri, who obtained great relief from pain by it, but when the dose was increased to four grains three times daily, had headache, black motes in vision on sitting up, and saw two persons instead of one: all which disappeared when the remedy was discontinued.

The uncertainty of the extract may be shown by an easy experiment. The conine, which in the process of decomposition is partly resolved into ammonia, is in this preparation always, according to Professor Geiger, more or less deficient, and often entirely absent; and to prove that this decomposition has taken place, it is only necessary to add some water of caustic potash, when the ammonia may be distinguished by the odour, and by holding over it a rod dipped in muriatic acid, whereupon the fumes formed by the muriate of ammonia are rendered visible. This experiment has shown ammonia in every specimen of the extract in which I tried it.

Wishing to secure the fresh plant in a state of preservation for winter use, I resorted to a plan which I believe will be found applicable to the preservation of plants generally for medical purposes. I caused the leaves and smaller stalks, fresh gathered before flowering, to be pounded up and intimately mixed with an equal weight of treacle. This mixture, of the consistence usual in an electuary, continued for several months until used, without showing the slightest tendency to decompose or to change any of its sensible qualities. This can only be ascribed to the treacle,* and I suggest this as a very useful mode of preserving as well as of exhibiting those vegetable productions, the efficacy of which depends upon their freshness. I gave this preparation in six grain doses to several patients, in whom I thought it might prove serviceable, but its effect was quite different from what I had anticipated. In every instance it acted as a purgative, producing full dejections, without either nausea, tormina, or narcotic symptoms.

We cannot expect that in regard to the place of growth, uniformity will ever be attained, but in regard to the part of the plant to be used, it is manifestly of great importance that a proper selection should be made. I think

* I had an opportunity of seeing an open vessel of treacle which was known to have laid exposed to the air in a store room for years, but which was the same in quantity and quality as when placed there. It neither formed crystals, admitted the growth of cryptogamous vegetables, nor evaporated. Early this summer I placed a vessel of treacle exposed to the open air; it now (November 26th,) remains exactly as I left it.

that, for external use, the entire plant, preserved in the way I have mentioned, would answer well, being both cheap and convenient: but that for internal use the seeds should be preferred; 1st, on account of their uniformity. Let it be remembered that seeds are, of all parts of plants, the least liable to variation in their mode of growth, structure, and chemical composition, and that they are the least dependent on artificial modes of drying for their future preservation, seeing that that process is performed by nature herself on fixed and uniform principles; and on this head I cannot do better than refer to the seeds of colchicum, which have enabled us to act with that plant as previously, when the root alone was employed, might have been attended with danger: 2ndly, because the seeds of hemlock contain more of its active principle than any other part. For this I refer to the experiment of Professor Geiger, who found that six pounds of the fresh seeds contained about an ounce of conine, while a hundered pounds of the plant only afforded a drachm.

BELLADONNA.

There is one property of belladonna, which I mentioned in a medical report of Sir Patrick Dun's Hospital in 1831, and which it has proved itself to possess in every instance, without exception, since that time; so that it is unnecessary to detail cases on the subject. It is this, that, *it causes an immediate cessation of the migratory or flying pain of rheumatism, without producing any effect on the fixed pains.* In this way it acts like a charm both in acute and chronic cases, and when it is recollected that in acute rheumatism, especially, the greater part of the suffering, and that most refractory to ordinary treatment, is the perpetual shifting of pain along the direction of the muscles from one joint to another, its value in all such cases will at once be admitted. The dose I give is one-third of a grain thrice daily, increased to half a grain every third hour. After trying various combinations, I prefer to give it in simple extract of gentian, as much as is sufficient to secure its accurate division into pills. Having observed its efficacy to be confined to the pains shooting along the direction of the muscles, and that any abatement of pain which it produces in neuralgia, or where the pain pursues the course of the nerves, is of a very inferior degree, and attended with great uncertainty, it appears to me that it acts on the muscular fibres belonging to the voluntary muscles as on the iris, and by stopping the spasm which is always present in severe cases, causes a cessation of the peculiar pain. This kind of pain always resembles fatigue, causing general restlessness and inability of remaining long in one position; and suggests very much the sensations experienced after excessive muscular fatigue, when the spasms, not of entire muscles, but of fibres, prevent sleep, while at the same time they produce a feeling of intolerable weariness.

EMETICS OF IPECACUAN IN HÆMORRHAGE.

Having already (Trans. of the Association, Vol. V.) stated the uniform success attending this treatment, I should not repeat it here, were it not that some authors, who have subsequently treated professedly on diseases of females, have entirely omitted to mention it. I have only to add, that with me it has never yet failed, except when the progress of the case afterwards proved the formation of scirrhous or cancerous structure. The remarkable effects of emetics of ipecacuan in restraining hæmorrhage, is not confined to this organ. In a case of violent epistaxis, in which several remedies were ineffectual, I tried it while preparations were going on for plugging the posterior nares, and with success, so as to render that measure unnecessary. In hæmoptysis, I am unable to add to the facts already known respecting its efficacy, being of opinion that hæmorrhage from the lungs is always salutary, and that the practice of giving the mineral acids, &c., to discourage it in phthisis is

injurious. A very considerable benefit is generally perceptible, after the vessels of the diseased lung have been unloaded by this discharge. When, however, a violent hæmorrhage takes place from the lungs, and blood is expectorated in such quantities as to endanger life, then all our efforts must be directed to its suppression. In a late case (not phthisis) I failed with the emetic, but as I lost sight of the patient subsequently, I am unable to pronounce as to the cause of the hæmorrhage, and, therefore, as the cause of the failure.

Dublin Journal of Medical Science, Jan., 1840, *p.* 466.

[In the following article also, will be found some interesting observations on ipecacuan in hæmorrhage; a treatment which we believe has not been generally adopted in this country, and indeed not heard of by many general practioners, although much used in some parts of the kingdom:]

12.—OBSERVATIONS ON THE USE OF IPECACUAN IN INTERNAL HÆMORRHAGIES.

By W. A. Trenor, Esq.

[It appears that Dr. Osborne published five cases of menorrhagia in the Transactions of the College of Physicians, in 1828, and soon afterwards, Mr. Trenor tried ipecacuan in similar cases, and with equal benefit. Ever since that time, it seems to have maintained itself in the good opinion of numerous medical men. Mr. Trenor says:]

I was called very early in the morning to see a young gentleman about 20 years of age, very robust, being six feet four inches in stature, and well made in proportion; had always enjoyed excellent health. At the time of my visit, about four o'clock in the morning, I found this young man sitting with his feet upon the hearth-stone, and his hands immersed in a basin of cold water. The floor round where he was sitting was covered with florid, frothy blood, and a large vessel in the room almost filled with it. He felt faint and suffocating; at times finding his inspirations very difficult, from the great quantity of blood which was literally flowing from his mouth. His face was a little flushed, which was naturally ruddy; his voice weak, and indistinct; pulse quick, small, and rapid; could not bear the slightest attempt at the reclining posture; called for air, and had all the windows and the door open. This was no case for venesection, and to wait for the sedative influence of the acetate of lead and opium, did not appear safe; it was instantly determined in my mind to use the ipecacuan, of which I gave ten grains in a little water. It was incredible the relief that followed the nausea, and some slight efforts to vomit, which this dose of the medicine excited. The hœmoptoe now abated; respiration became more easy; and in some little time the reclining posture could be indulged in. The young gentleman after some months recovered perfectly, went to America, where, I understand he suffered severely from Asiatic cholera, but ultimately recovered from it. Dr. Crampton saw this young man with me at his father's residence in Simmons court.

The second case of this kind occurred in a young gentleman of tall and slender figure, seldom sick, yet of delicate constitution. He was in his 21st year; had been confined to the house for a few days, with what was considered catarrhal fever, got from travelling for some miles on the outside of the coach. Like the former case it was very early in the morning, three o'clock, when the hœmoptoe came on.

I found him supported erect in the bed, with both windows open; he could scarcely speak. The quantity of blood, though very great, was not anything like the quantity in the former case, yet the prostration was much more

alarming; countenance contracted and death-like: the anxiety of manner very great. The strength had failed, and the interval between each expectoration of blood had become longer, yet the breathing was becoming more oppressed, and the distress more urgent. In this case the ipecacuan was given in doses of two grains every fifteen minutes in a little cold water. He had not long taken the second dose before some nausea was felt; and with it the respiration became less oppressed. The third dose of the medicine increased the nausea to some effort to vomit, but the stomach did not empty itself. The appearance of blood now decreased, and soon disappeared, nor did it return for several weeks, and was then very moderate in quantity. This case ended very differently from the former, as it rapidly terminated with phthisis. Dr. Marsh attended this young gentleman through the whole of his illness with me from the day after the hæmorrhage.

The cause of the hæmorrhage in these two cases was very different, yet the ipecacuan was a most salutary and efficient means in each in restraining the flow of blood.

In another case, somewhat similar to the above, with quick pulse, sputa almost all florid blood, and the right lung apparently gorged with blood, the ipecacuan was given with equal advantage. It was given in grain doses every half hour, until the patient had taken three or four grains.

If any nausea was felt, the patient was to lengthen the intervals; this he was reconciled to do, as he said he would prefer being sick rather than have the bleeding continued. In this way he took twenty grains of hippo in the course of thirty hours. No vomiting came on, but much nausea; the blood disappeared from the sputa. I told him now to leave town for some weeks, and take his pills with him: this he did: and although he attended closely to business, and was often exposed to vicissitudes of weather, he has had no return of the hæmorrhage.

[The following case of menorrhagia seemed also to be benefitted by the same mode of treatment, according to Mr. Trenor, although we confess that the proofs of its efficacy were in this instance not so clearly marked, as other treatment was combined, which might materially assist.]

The quantity of blood lost was very great indeed, for it was in a pool under the bed; the bed-clothes literally saturated with blood. The lower extremities cooled by the vinegar and water, which she had been in the habit of using in milder attacks of this hæmorrhage, were now quickly dried, and a warm binder firmly bound round the hips, a sponge pressed out of hot water and vinegar introduced into the vagina, a compress of linen, and the bandage to secure all. While I was thus employed one of the family was endeavouring to make her swallow some brandy with twenty grains of hippo in it; almost every appearance of life had fled; there was no pulse to be felt, and the extremities, arms, and legs cold as death; she scarcely breathed for an hour, during which time every exertion was made in the way of warm friction, turpentine, enemata, and brandy, in such quantities as could be got down the throat. The hæmorrhage from the vagina seemed to have ceased, so far as the clean bandage gave information; indeed, death seemed to have closed the scene. At last the chest heaved, respiration now became evident, she could swallow better, and the brandy was more liberally given; after much watching and attention, warmth seemed to become more evident on the surface. In three hours from her getting the ipecacuan, some slight effort to vomit came on, which we thought was occasioned by it. An eminent surgeon, who is now no more, saw her while lying in this condition, and I shall never forget the remark which he made when he was going away. However, I did not consider this death-like interval to be entirely attributable to the loss of blood; hysteria often assumes this still form of existence,

and here was a subject under circumstances calculated to excite the most formidable aspect of this disease; the result proved I was right in my exertions The force of vomiting was at last so strong as to assure me the medicine was producing its effect; the cloths of the bandage became bloody, which, with the sponge, were removed; the latter was saturated with blood. Life now every hour became more and more established, and in about three months this lady could be removed to the sea side, where she gradually recovered both health and strength. She still continues to be afflicted with excessive loss of blood occasionally, for which she regularly takes some grains of hippo, but not an emetic dose; and is never disappointed in its effect of arresting the hæmorrhage. The last time I heard of her, she could walk six or eight miles in the day, and that perhaps three times a week.

[Another case shows its efficacy in hæmorrhage from the alimentary canal.]

In May, 1838, a young lady was seized with faintness, while standing beside her brother who was fishing not many yards from the house; soon after getting home she became sick and vomited much blood. The intervals between each attack of vomiting were short and variable, sometimes an hour, and again may be two or three hours. Thirty-two hours from the time of attack the vomiting had not ceased, the patient was lying in the dress in which she had been taken ill, loosened as much as possible, as every movement created sickness which would not subside until vomiting came on. Her mouth and tongue were as white as her lips and cheeks from the great loss of blood, the pulse was scarcely perceptible, the extremities cold; had taken nothing but cold drinks in mouthfuls, and her medicine, since the attack came on. In this state the ipecacuan was proposed to be given in grain doses every half hour, combined with the same quantity of calomel; after taking the third dose, nausea became distressing, accompanied by faintness; this soon subsided, but after the fourth grain the effort to vomit was complete, and a perfectly yellow bile was vomited without any admixture of blood; the medicine was now laid aside. This lady recovered rapidly and perfectly, under the judicious management of my friend Dr. Cuming, and is now in excellent health.

The chief value which the experience of the foregoing cases exhibits, appears to be that the remedy does not require to be exhibited in its full emetic dose; this at once disarms the medicine of many of its disagreeable features. Few friends will administer an emetic dose of ipecacuan in hæmatemesis, even though prescribed by the physician, but let the latter administer small doses of the remedy, and their prejudices are at once overcome; there is a certain feeling too in the breast of the physician, which forbids him to use a remedy so little in accordance with the ideas of the public, though they may be erroneous, as his success in his profession depends upon the confidence which the community at large place in his judgment and good sense; and should these be once forfeited, it is no easy matter to regain them. This feeling, I think, is one great cause why this well-known remedy has not been more generally prescribed.

Dublin Journal of Medical Science, Jan., 1840, *p.* 447

[After reading the above interesting case, a question arises in our minds, whether or not any other nauseating medicine would produce similar effects in stopping hæmorrhage. For it is a well-known fact in physiology, that when sickness exists, whether from loss of blood, or from any other cause, the blood coagulates much more rapidly than at any other time, and hence the ruptured and open vessels may be more rapidly closed by coagulum. We consequently find that in hæmorrhage from uterus, when the woman is in a complete state of syncope, the flooding

ceases not only from the diminished *vis a tergo*, but also on account of the admirable provision.]

13.—ON THE PREPARATION AND USE OF KOUMISS.

By Dr. Mayo.

[We extract the following from Dr. Mayo's Lectures on the Pathology of Morgagni, as this way of giving milk is not generally known or appreciated by the profession, and when recommended by such a man as Dr. Mayo, will probably be more generally used in consumptive cases.]

That milk should be valuable in laryngeal phthisis is very conceivable; but it is often difficult to render it acceptable to the adult stomach in this as well as in other disorders in which it might be valuable. In two cases, one of laryngeal phthisis, another of marasmus, apparently arising from mesenteric affection. I have employed, with considerable success, a preparation of milk, imitated from that which goes by the name of koumiss. The first of these cases, a lady, aged 50, occurred to me in the year 1818. Its general features resembled very nearly those of the case extracted from Morgagni. In the second case, obstinate sickness, or, if food were kept on the stomach, intense indigestion, had reduced a young lady, aged 20, to a very dangerous state of weakness and emaciation. There was no irregularity of the catamenia, and no moral cause to which this state could be referred; It had come on gradually and furtively. She was of a relaxed habit and pale complexion. Measures adopted to remove a presumed obstruction of the liver, which was not indicated by the state of the fæces, had proved ineffectual, or rather, I might say, productive of mischief.

In the first of these cases, the preparation to which I would call your attention was made from asses' milk, in the second, from cow's milk. In both cases it was taken in considerable quantities, and formed the exclusive diet of the patient for some time.

The result of this treatment was very decisive in these two cases, and the authority in favour of its further trial so good, that I do not think I can better employ your time than in giving you some further details of the preparation which I imitated, even though they should extend to some length.

A history of koumiss was read by Dr. Black, before the Royal Society of Edinburgh, in the year 1784, on a communication made by Dr. Grieve, late physician to the Russian army. He describes it as a vinous liquor prepared from mare's milk. It appears, as far back as the thirteenth century, to have been a common beverage of the Tartar nations.. The latest writer by whom it was mentioned before Dr. Grieve, was the celebrated professor, Dr. Pallas. The following method of making koumiss, says Dr. Grieve, is that which I have adopted in my own practice with success. It is common among the Barchkir Tartars, who inhabit the territory between the rivers Kama and Volga. It was communicated to me by a Russian nobleman, in whose case I was consulted, and who was the first who made use of it by my advice. He went into that country on purpose to drink it, and as he resided for some time there, he could not be mistaken as to the process.

Take of fresh mare's milk of one day, any quantity; add to it a sixth part of water, and pour the mixture into a wooden vessel; use then, as a ferment, an eighth part of the sourest cow's milk that can be got; but at any future preparation, a small portion of old koumiss will better answer the purpose of souring. Cover the vessel with a thick cloth, and set it in a place of moderate warmth; leave it at rest twenty-four hours, at the end of which time the milk will have become sour, and a thick substance will have gathered at the

top. Then with a stick, made at the lower end like a churn-staff, beat it till the thick substance above mentioned be intimately blended with the subjacent fluid. In this situation leave it at rest for twenty-four hours more; after which, pour it into a higher and narrower vessel, resembling a churn, where the agitation must be repeated as before, till the liquor appears to be perfectly homogeneous; and in this state it is called koumiss, of which the taste ought to be a pleasant mixture of sweet and sour. Agitation must be employed each time before it is used.

From the time, observes Dr. Grieve, that I had heard of koumiss, I had conceived an opinion of its importance in the case of certain diseases. I judged that a preparation of milk which could not be curdled by the juices of the stomach, while at the same time it possessed all its nutritive properties, with the superaddition of a fermented spirit, might be of essential service in all those disorders where the body is defective in the capacity for obtaining nutrition. The following year, he observes, I resolved to try it, at Nischene Novogorod, under my own eye. As mare's milk could not be obtained in sufficient quantity in town, it was made at the seat of a gentleman not far distant, from which it was occasionally transported. The season was far advanced, however, before its efficacy could be tried. At last, (about the middle of August, 1782,) I was consulted by the General Governor's nephew. He had all the symptoms of incipient phthisis: pain of the breast, dry cough, occasional hœmoptysis and great emaciation. He had not, however, become hectic. His two elder brothers had died of the true pulmonary consumption. He had taken much medicine in a different part of the country, and had observed a strict antiphlogistic diet: but though milk had constituted the greatest part of his diet, yet there was no sign of his recovery. He drank koumiss for about two months only, and that in rather an unfavourable season. But the consequence was, that all his symptoms disappeared, and that his flesh and strength returned, nor was there any reason to suspect a relapse at the time that I left the country.

In various cases in which I have employed this remedy (obtained once from asses' milk, at other times from cow's milk) I was led by a wish to obtain a form of milk which should suit and satisfy the stomach, without much reference to its asserted vinous properties, and under circumstances in which an unstimulating regimen was apparently expedient. Where its use has failed in my hands, the koumiss, I must observe, has appeared to me unsuccessfully prepared: as not possessing the obvious conditions of taste here described. I adduce the subject as one which deserves, both from myself and others, further attention.

It is indeed, a painful consideration, and one which if it does not occasion scepticism as to the resources of medicine, may at least inflict some degree of disgrace on our modes of using those resources, that there should exist so large a catalogue of absolutely unappreciated remedies.

Medical Gazette, Jan. 17, 1840, *p.* 619.

14.—ON ALKALINE INDIGESTION.

By R. D. Thompson.

(Abstract of a Paper read before the British Association, at Birmingham.)

It has been long known, that in stomach complaints fluids are frequently ejected from that viscus into the mouth; and it has been by examining the chemical constitution of those fluids that the author has been enabled to simplify, in some considerable degree, one of the most disagreeable forms of dyspepsia. Dr. Thompson divides the fluids which he has detected in these complaints into *acid*, *alkaline*, and *neutral*.

1. The *acid* state is familiar to most persons. In the natural, there is no doubt that during a certain period of the process of digestion, the contents of the stomach exhibit an acid re-action; that is to say, that litmus paper, dipped in the fluid existing in the stomach, becomes red; that the fluid tastes acid, and that when distilled over, a quantity of pure water having been previously added, the fluid which passes into the receiver exhibits a faint acid re-action. This does not occur, according to Shultz, however, during the first half hour, or hour of the process of digestion. The acid would, therefore, appear to be generated by the process. The discussion with respect to the nature of the acid, Dr. Thompson stated he would reserve that for the Chemical Section. When this natural acid, however, as it may be termed, accumulates to a certain extent, symptoms of disease exhibit themselves, in the form of a burning sensation at the pit of the stomach, with acid eructations, which do not, however, alleviate the pain. This is the characteristic symptom of *acid indigestion.*

2. The 2d form of indigestion, indicated by the fluid ejected from the stomach, Dr. Thompson terms *alkaline indigestion.* It is characterized by violent pain in the region of the stomach, accompanied frequently with headache and faintness, with a sensation of spasm or contraction in that viscus; the sensation goes on increasing, till it frequently becomes intolerable, and, at last, when the agony is complete, the patient is suddenly roused by a determination to the mouth of a large quantity of fluid, which must be immediately evacuated, to give place to a succession of similar occurrences; at last, however, the flow of fluid becomes so abundant as to constitute an actual stream: it continues to flow for some time, but gradually diminishes in quantity, and at length ceases, and with it the pain in the stomach. The latter is the characterizing symptom of *alkaline dyspepsia* or *pyrosis*, as it has been frequently termed. But hitherto it has always been confounded with other forms of indigestion. Dr. Prout has published an account of his examination of the fluid of *pyrosis*, and has stated that it was acid; the fluid, however, was not procured by himself, but was sent him from one of the hospitals; where the mistake was very likely to occur. This form of indigestion occurs more frequently than is generally imagined. Dr. Thompson stated, that out of forty or fifty patients daily seen at the Blenheim-street Dispensary, in London, he generally met with one or two affected with symptoms of this description. It frequently occurred in coincidence with affections of other organs—as of the uterus, liver, &c., and was often of such a pressing nature, that it required more of the skill of the medical man than the original disease. Certain it was, that it was absolutely necessary to treat it with as much care as the original complaint; and if the action had been allowed to go on for some time unchecked, the secondary affection became as firmly fixed as the original disease which had induced it; so that after the removal of the latter a second disease, as firmly rooted as the first, required to be taken under the physician's care: the treatment consisted of the administration of acids, tonics, and narcotics, which required to be prescribed with care, otherwise the *acid indigestion* was frequently induced, which was as difficult to eradicate as the alkaline form.

3. The last form of indigestion, as indicated by the fluid ejected by the mouth, which the author had met with, was a *neutral* state, which was of much rarer occurrence. Dr. Thompson had, however, met with several cases, and had succeeded in overcoming the disease by the use of tonics.

London Lancet, Sept. 21, 1839, *and British and Foreign Medical Review, Jan.* 1840, *p.* 273.

15.—ON THE USE OF CODFISH IN SCROFULA.

By Dr. Taufflied.

[The author was disposed to try this remedy in some obstinate scrofulous diseases, from the praises which it had received from the German physicians; and although it would be difficult to obtain the same preparation at all times, the cases given by Dr. Taufflied are well worthy of our attention. In the first case related, which is a scrofulous affection of the bones of the back, all remedies seemed to fail till the oil of cod was given, and persevered in for some time. There was complete paralysis of the inferior extremities, with projection of the spinous processes of the first two lumber vertebræ, and finally a large abscess, formed by congestion near the sacrum.

Four spoonsful of the oil were given every day for a month or two—the case soon appeared to be cured, but relapsed; and again the oil was had recourse to—the cure was then completed; and each time, the improvement commenced soon after giving the oil. The patient, a young man, consumed about thirty-six pounds of oil of cod in two years and a half.

In the second case, a girl of six years, whose foot was a shapeless mass, pierced by a number of fistulous openings, two spoonsful were given daily for nearly six months, with the same evident improvement, after the failure of the ordinary remedies.

Other scrofulous cases are related by Dr. Taufflied which we have not space here to insert; suffice it to say, that in all, the most marked good effects followed, and the author comes to the conclusion, that when the remedy is administered with perseverence, it is able to effect an alteration in the constitution, and imprint a favourable direction on the organs of nutrition. This advantageous effect of the oil has shown itself in the majority of the persons who have taken it, by the more or less speedy return of strength and plumpness, and by an indisputable influence on the scrofulous disease itself. Hence, the oil of cod will fulfil the indications of the general treatment.

Dr. Taufflied proceeds to say, that—]

Caries, being a local disease, requires in addition, some special treatment. Burrowing sores, fistulous passages and particularly the ulcerations and swellings of the soft parts are so many obstacles against which internal treatment can do nothing. Compression, and stimulating the ulcerated surfaces by the solution of ioduret of potassium in alcohol and water, have been the means with which I have always succeeded in getting rid of these obstacles. I am convinced that the oil of cod alone would have been insufficient to cure the caries in cases 2, 3, 4, and 5, while it was sufficient to remove the scrofulous swellings of the malar bone, and of the bone of the nose, in the 4th and 5th cases, and the caries unaccompanied by any external sore in the first case.

Hence, the cure of scrofulous caries required a mixed treatment. The efficacy of this method in diseases which so frequently resist the efforts of art, makes us hope that surgical intervention will henceforward be limited to a small number of exceptional cases, which experience will teach us to distinguish.

The oil was administered in three cases of coxalgia, with incomplete luxation of the thigh. In one of these instances the inflammatory symptoms were previously combatted by an antiphlogistic treatment. After a treatment lasting several months, the patients were able to use their limbs, though they were more or less shortened. In another case of incipient coxalgia, the local pain, which, however, was by no means serious, and the lameness readily

yielded to the use of the oil. These patients were of a lymphatic constitution, without having well-marked symptoms of scrofula.

The oil was moreover administered to two women who had lost the use of their limbs for several years, in consequence of chronic rheumatism of the joints. In these patients the power of locomotion was so limited, from the swelling and stiffness of all the joints, that it was necessary to carry them from one bed to another. The use of the oil gradually removed the swelling of the joints. In five or six months the power of motion was re-established, and at present, the patients are able to walk with considerable ease.

I cannot refrain from reminding the reader, that the therapeutic powers of the oil of cod first showed themselves specially in rheumatic arthritis of the chronic form. It was afterwards employed with equal success against scrofulous white swellings. This perfect resemblance in the results obtained by the same treatment, in affections of an apparently different kind, seems to support the opinion of those physicians who, like M. Brefeld, consider arthritic rheumatism in its chronic form, and scrofulous arthritis, as almost identical. The efficacy of the oil of cod in these diseases, whether scrofulous or rheumatic, is fully confirmed by the observations of Schenck, Gunther, Wesner, Moning, Schutte, Brefeld, and other practitioners.

When the white swellings are acute or inflammatory, whatever may be their origin, a local or even a general antiphlogistic treatment ought always to precede the administration of the oil, the action of which is commonly too slow to arrest the rapid progress of an acute disease. In gouty arthritis, the oil of cod, as M. Brefeld remarks, has no efficacy. I found this to be the case in one of my patients, who was attacked with gout, and made use of the medicine.

It is probable that its healing power depends primarily on its restoring the functions of nutrition when it is in a disordered state; so that its influence upon diseases of the bones and joints may be considered as secondary or consecutive. The therapeutic properties of this oil have been attributed, by some physicians, to a small quantity of iodine which M. Hopper has discovered in it. This will not appear very probable if we recollect that the preparations of iodine taken internally for a long time, and in large doses, had hardly any influence on scrofula of the bones in cases 2 and 5.

We may reduce what we have said to the following propositions:—

1. The oil of cod has a favourable influence on the general state of lymphatic patients who make use of it.

2. When properly administered, it has the property of curing scrofula of the bones, marasmus, and chronic arthritis of a scrofulous or rheumatic form.

3. Caries, accompanied by a sore and swelling of the soft parts, requires the general treatment with cod oil, to be seconded by local applications. Compression and iodurettted alcoholic fomentations may be employed with success under such circumstances.

4. The oil of cod is of no avail against gouty arthritis, or swellings of any lymphatic glands but those of the abdominal cavity. Its action seems doubtful, or null, in scrofulous phthisis, when at all advanced.

5. The oil of cod must be administered with perseverence, and for several months, to produce an advantageous result.

Abridged from the Gazette Medicale, Nov. 9, 1839.

[The *huile de morue* so highly extolled by Dr. Taufflied is the oil of the liver of the cod—*oleum jecoris aselli*. It is difficult to procure in this country.]—*Translator.*

Medical Gazette, Feb. 28, 1840, *p.* 141.

16.—SALIVATION BY SMALL DOSES OF MERCURY.

In the discussion respecting the salivation of patients by minute doses of mercury, in the Westminster Medical Society, Mr. Snow offers an ingenious explanation. He says:]

He did not believe that the salivation which was occasionally produced by a very small dose of mercury depended on any idiosyncracy of constitution, which continued during the patient's life, but was the result of the presence of an excess of acid in the first passages. He had been led to this conclusion by having frequently seen patients salivated by a very small quantity of calomel or blue pill, taken at the same time with mixtures containing dilute sulphuric acid. Very lately, a man who was taking sulphuric acid freely for epistaxis, was severely salivated by two grains of calomel in a dose of cathartic pills. The acid naturally contained in the stomach were the muriatic and the acetic, and the mercury contained in a grain or two of calomel, or a few grains of the blue pill, would, of course, be sufficient to produce the most serious consequences, if changed into the bi-chloride. If the view he had suggested was correct, the means of preventing untoward effects would be to give corrosive sublimate at once, where a course of mercury was indicated, and to give it in suitably minute doses.

Mr. Streeter remarked that the fact of the action of blue pill being much more powerful at one time than another, might be accounted for by the conserve of roses, with which the metallic mercury was triturated, being occasionally mixed with sulphuric acid, for the purpose of restoring its lost colour. Hence, instead of the simple oxide, the sulphate of mercury was producing its effects upon the patient. He had no doubt, however, that some constitutions were remarkably susceptible of the influence of mercury in its mildest forms. He had seen severe salivation produced by the administration of nine grains of blue pill, although it had only been given in one grain doses three times a day, and its effects watched with the greatest care.

London Lancet, Jan. 18, 1840, *p.* 625.

[This reminds us of the practice of Dr. Law, who produces salivation with calomel, given in very minute doses, and frequently repeated. And we can bear testimony to the truth and efficacy of Dr. Law's treatment in numerous cases which we have met with lately. Dr. Law says:]

We have no particular selection of cases, but such as were labouring under affections which we ordinarily treated with mercury. We directed one grain of calomel to be mixed up with a sufficient quantity of extract of gentian to make a mass to be divided into twelve pills, one of which was to be taken every hour. We found, in some cases, salivation produced by twenty-four pills, or two grains of calomel: and seldom were forty-eight pills, or four grains, required to produce this effect. We would say, that thirty-six pills, or three grains, was the average quantity required to effect salivation. We exhibited blue pill in the same way, and found the mouth to become sore from six grains.

We have not yet tried it in primary syphilis. But this we have observed, that we have succeeded in bringing the system under the influence of mercury in a very short time by frictions of ten grains of the ointment. We have found one drachm divided into six parts, and one part rubbed in every night, sufficient to produce salivation.

[Several cases are given, illustrating the good effects of the remedy, employed in this manner: and, among the rest, two in which the constitutional effect was *postponed* by the patients taking a *larger* dose than was

prescribed; in these two cases the medicine acted on the bowels. The following is Dr. Law's explanation of the facts.]

We conceive the efficacy of this mode of exhibiting mercury to depend not only upon its *remora* in the system being ensured by the smallness of the dose, but also, upon a succession of impressions being kept up by the exhibition of these small doses at intervals, not so distant as that the effects of the impression be passed away before they be succeeded by another: nor yet so short that the small doses, crowded upon each other, produce but one impression, and that one such as would result from a single dose, equal to the sum of the small doses.

[Dr. Law concludes as follows:]

It now remains to be established, if this effect from a small be equal to that produced by a larger quantity. Of this we feel quite confident that experience will prove that all the advantage to be derived from the medicine is within the compass of a much smaller quantity than has hitherto been supposed, provided that small quantity be exhibited with due attention to circumstances calculated to promote its effect; and we would further expect that this more guarded exhibition of it would save us from the frightful mischief that we sometimes see following it when largely administered; and which sometimes suggests to us the question, if mankind would not have been benefitted by an agent, capable of such mischief, never having been introduced into the Materia Medica.

British and Foreign Medical Review, April, 1840, *p.* 582.

If this extraordinary effect can be produced by calomel, so contrary to the general practice of medical men, why may not equally powerful and rapid effects be produced by other remedies when given in a similar manner.

17.—THE HYDRATED PEROXIDE OF IRON AS AN ANTIDOTE TO ARSENIC.

A young lady, disappointed in love, resolved on suicide. She took a packet of arsenic containing two drachms, put into a silver vessel, poured over it about two ounces of water, and drank the fluid contents. This was about midnight. She then went to bed; but finding death not approaching, she took some of the poison which remained at the bottom of the vessel, and endeavour to push it down her throat, but its bitter taste, she said, made her spit out a part of it. She must however, have taken about fifty-six grains of arsenious acid. At one in the morning, the first symptoms of poisoning manifested themselves by several attempts at vomiting, and by a feeling of burning heat in the throat and in the region of the stomach. It appeared that the patient had that day ate a hearty dinner, the digestion of which had not apparently been finished, as the vomiting brought up a portion of it, and probably also some of the poison. The pain soon became violent, followed by cramps in the calves of the legs.

Dr. Deville saw the patient at four o'clock in the morning. She had vomited three or four times; she had intense frontal head-ache, and her face was much flushed; her eyes were greatly swollen, and filled with tears: and she complained of a feeling of suffocation, and also of acute burning pain in the throat and stomach. Her pulse was strong, full, and bounding. Dr. Deville thought that he had arrived too late to render effectual assistance, and gave only some milk and other drinks to aid the vomiting, and applied a poultice over the region of the stomach. The symptoms progressively increased in

intensity, and Dr. Delons was sent for, who proposed to give the hydrated tritoxide of iron. This medicine was procured by half-past five, five hours and a half after the taking of the poison. It was given in ounce doses about every quarter of an hour, till eight o'clock, by which time nearly half a pound had been taken. It was then discontinued, as it had produced vomiting several times, and had purged twice, and as the symptoms appeared to be abating. She still, however, suffered from violent cramps, particularly in the left leg. The pulse still continued full and bounding; the pains in the epigastrium were at times insupportable, and then again almost disappeared. Twenty-five leeches were applied over the stomach, followed by cataplasms; and emollient injections were administered at intervals.

Feverish symptoms, with violent head-ache, continued for this and several succeeding days, preventing the patient from enjoying a moment's repose. The pain in the epigastric region, however, diminished under the use of warm baths and soothing treatment; and at the end of eleven days she had completely recovered.

American Journal of Medical Science, May, 1839; *and Edinburgh Med. and Sur. Journal, Jan.*, 1840, *p.* 254.

[The above is confirmed by the opinion of the German chemist, M. Bunsen, as related in the *Revue Medicale*.]

The value of the remedy has been confirmed by several other experimenters: and as the compound formed by the union of the two metallic salts is quite insoluble and inert, there is every reason to believe, that if a complete union could take place in the stomach when the poison has been swallowed, and before it has produced its deleterious effects, many a life might be saved. As far as we know, there is only one case on record where the peroxide has been used in the human subject; and in that case it was used with success. It is reported in the Revue Medicale, and an account of it was given in one of our recent numbers. The only objection that has been made against the moist peroxide is the tediousness of preparing it, its inconvenient bulk, and the difficulty of keeping it for a length of time. A committee was recently appointed by the Society of Medicine to examine the subject in all its details, and to endeavour to discover a substitute for the moist peroxide recommended by M. Bunsen.

The report of this committee has been published, and we shall extract one or two of its most important paragraphs.

After a few prefatory remarks, it is stated, "we do not hesitate to assert that the arsenious acid is *victorieusement combattu*, not only by the moist peroxide of iron proposed by M. Bunsen, but still more effectually and more easily at the same time by the dry hydrated peroxide—the sub-carbonate of iron of the chemists."

This is readily prepared by precipitating the proto-sulphate of the metal by carbonate of potash and washing the precipitate repeatedly. By exposing it freely to the air during desication, it becomes completely oxidated, loses its carbonic acid, and is then in short a dry hydrated peroxide:—100 drachms of this precipitate, when calcined, yields 69 drachms of an anhydrous peroxide.

The reporters acknowledge that the wet preparation recommended by M. Bunsen has in many experiments fully answered the promises held out by that chemist, provided it be administered in sufficiently large doses. But, as we have already said, the objection to this preparation is the length of time required to make it, and its most inconvenient bulk. If, therefore, the dry peroxide will answer as well, it must be, considering the facility with which it may be obtained, altogether preferable. Now in numerous experiments performed by the reporters, its antidotal efficacy was very remarkable wh the dose of the poison had not exceeded four or six grains.

The first thing to be done is to encourage vomiting as freely as possible But in doing this, the patient should be made to drink copiously of milk or of oil, and not of water, to prevent the further solution of the poison. Whenever the vomiting is carried as far as is deemed advisable, a quantity of lukewarm water, in which several ounces of the dry peroxide of iron are suspended, should be administered. If it is rejected by vomiting so much the better; we have only to repeat the dose immediately.

The committee suggest that half an ounce of the dry peroxide should be given for every grain of the arsenic that may be in the stomach.

For the particulars of the experiments, chemical and physiological* (on dogs) for the purpose of determining the effects of the peroxide in neutralising arsenious acid, we must refer our readers to the numbers of May and June, 1839, of the *Revue Medicale*.

Medico Chirurgical Review, Jan., 1840, p. 225.

[We also add the following case from the *Lancet*:]

On the 4th of October last, MM. S———, father and son, were seized with violent vomiting immediately after supper. It was discovered that some substance was contained in the wine bottle from which they had drank. The bottle was at once carried to a medical man, who tested the contents with the blow-pipe, and discovered arsenic. Three hours after the presumed poisoning the iron was administered, and after the third or fourth dose the vomiting had ceased; the remedy was, however, continued for the sake of precaution, and towards seven o'clock, A.M., the patients fell asleep. On the following day they were perfectly recovered. Some members of the family, and servants, who had tasted a small quantity of the wine, through curiosity, were seized with vomiting. A considerable quantity of the poison was found in the bottom of the bottle, and that taken by the two men must have been much more than sufficient to occasion death.

London Lancet, March 7th, 1840, p. 901.

[These interesting cases are confirmed by Dr. Mackenzie, in a recent number of the *Lancet*, where several very interesting experiments are related which render it still more probable, notwithstanding the contrary opinion of Mr. Brett and Mr. Orton, that we are in possession of a powerful antidote to this most violent poison. Dr. Mackenzie says:]

The inefficacy of sulphuretted hydrogen, the alkaline sulphurets, charcoal, &c., as antidotes to arsenious acid, having been fully shown by M. Orfila, I resolved to make a few experiments with a view to determine whether the last-discovered counter-poison, viz., the hydrated sesquioxide of iron, so much extolled by the toxicologists of the continent, more particularly by those of Germany and France, is a true antidote.

There are two methods of preparing this substance, viz., by adding ammonia to the persulphate, or to the pernitrate of iron. The hydrated sesquioxide immediately precipitated, is to be collected on a cloth filter, where it is to be carefully washed with boiling water, until most of the sulphate of ammonia is removed, which will be ascertained by the water used in washing not affecting reddened litmus paper. The permuriate of iron does not answer for the preparation of this substance, as on the addition of the ammonia, there is thrown down along with the sesquioxide, a considerable quantity of chloride of iron. The hydrated sesquioxide ought to be kept in a state of a magma, as it is found to unite with arsenic more readily in that condition than after it has been dried. It should be carefully excluded from the air,

* It is mentioned in the report that *small doses of arsenic*, say four or six grains, *proved more quickly fatal than larger ones*, as from 12 to 40 grains. The absorption seems to go on more rapidly when the dose is small.

as it is apt to absorb carbonic acid. M. Henry says, that from every thirty-six parts of sulphate of iron there will be obtained twelve of the sesquioxide. The quantity of the antidote requisite to neutralise a given portion of the poison has been differently stated. Dr. Bunsen recommends from two to four drachms, with sixteen drops of ammonia, to be given for every six or eight grains of arsenic; while MM. Orfila and Lesueur give a much larger quantity. M. Bouley gives thirty-two parts, and Drs. Borelli and Demaria four and a half, for every portion of arsenic; but the quantity most generally chosen is that recommended by MM. Miquel, Soubeiran, and Nonat who administer the antidote in the ratio of twelve to one of the arsenious acid.

[Several experiments are then related, but as they are all to prove the same thing, we will only give a few, and refer the reader to the rest, if he feel so inclined: remarking, however, that as both the poison and antidote were given within a very short time of each other, they are not sufficiently conclusive; as it is very seldom the case that a medical man is sent for within so short a period as five or ten minutes after the poison has been swallowed. The cases, however, related in the American Journal, above quoted, and in the *Lancet* of March 7th, are more satisfactory on this point:]

Experiment 1.—Three grains of arsenious acid were dissolved in about an ounce of water, and then a quantity of the magma of the hydrated sesquioxide, equal to thirty-six grains, was mingled with it. The mixture was immediately filtered, and tested with ammoniaco-nitrate of silver, ammoniaco-sulphate of copper, and sulphuretted hydrogen, none of which gave the characteristic precipitates.

This experiment proves that all the arsenic had united with the sesquioxide of iron, and had formed an insoluble compound with it, which Dr. Bunsen says is an arsenite of iron. I repeated this experiment several times, and always with the same result, which shows that Mr. Brett was wrong in stating that "an excess of peroxide of iron will not neutralise arsenious acid, even when the last is in solution, and the time allowed very considerable."

Having thus proved that when a solution of arsenic and the sesquioxide of iron come in contact, they combine, and form an insoluble compound, I proceeded to make a few experiments on animals, with a view to determine whether, when arsenic is introduced into the stomach in the solid form, the antidote combines with it, and prevents it acting.

Experiment 2.—At a few minutes past four, P.M., I injected, by means of an œsophagus tube, into the stomach of a large mongrel dog, eight grains of arsenious acid in fine powder, and immediately afterwards, a quantity of the magma of the hydrated sesquioxide, containing one hundred grains, suspended in about five ounces of water, œsophagus was then tied to prevent vomiting. This animal presented none of the appearances which so large a dose of arsenic always produces. It was killed about three o'clock on the following day.

Dissection immediately after Death.—The peritonæum was perfectly healthy throughout the whole of its extent. The mucous membrane of the stomach presented slight redness at its anterior portion, towards the great curvature. There were several inflamed spots along the course of the duodenum, but they were very few and faint in the jejunum and ileum. The cœcum and large intestines were healthy, but the rectum, at its termination, was considerably reddened. The other organs in this cavity were natural. The heart and lungs presented no abnormal appearances.

Experiment 3.—At one, P.M., seven grains of arsenic were administered to a very small mongrel dog, and, five minutes afterwards the antidote, in the ratio recommended by M. Bouley. A ligature was then tied round the œsophagus, to prevent vomiting.

The animal was rather weak after the operation, but it soon became stronger. It was visited at half-past eight o'clock in the evening, and the ligature round the œsophagus was removed. No vomiting took place. On the following morning it was quite healthy, and there were none of the symptoms present which characterise poisoning by arsenic. The food which had been laid before it on the previous evening, remained, as far as I could judge, untouched. However, during the course of the day, it both ate and drank, and, in short, continued perfectly well. It was killed on the sixth day after the experiment.

Dissection.—The peritonæum was healthy. In the stomach there was slight redness, considerably diffused, which extended to within about two inches of the pylorus, and the mucous membrane was coated in several places with false membranes. The small and large intestines exhibited the same appearances as in the last experiment. The lungs were healthy, and the only morbid appearance in the heart was a very slight ecchymosis at the left auriculo-ventricular opening.

Remarks.—All the foregoing experiments tend to prove that Dr. Bunson did not err in ascribing so much value to the use of the hydrated sesquioxide of iron, precipitated by ammonia, in cases of poisoning by arsenic, as Messrs. Brett and Orton asserted that he did; and they show that these gentlemen were wrong in stating that no confidence could be placed in its properties as a counter-poison. In all of the experiments slight inflammation was found in the stomach and intestinal canal, but that does not invalidate the efficacy of the antidotes, because, whenever arsenic comes in contact with the mucous membrane, it adheres to it, and soon becomes enveloped in a coat of mucous, which effectually prevents the antidote acting upon it, and consequently causes inflammation, more or less severe according to the quantity thus covered up.

There is a considerable number of cases, where this antidote was used with success, related in the following periodicals, viz:—

Gazette Medicale, Aout 22, 1835.

Literary Gazette, 1835, p. 556, two cases.

Lancet, 1834-5, vol I., p. 516.—Lancet, 1838-9, vol. I., p. 54.—Lancet, ditto, ditto, p. 327.

Medical Gazette, vol. XIX., p. 177.

British and Foreign Med. Rev., vol. I., p. 572, six cases. Ditto, ditto, vol. VII., p. 563.

Upon being called to a case the practitioner ought, if vomiting has not taken place, to administer an emetic, while he is procuring the antidote. This will prove useful by evacuating the stomach of a considerable quantity of the poison; of course it would be wrong to give an emetic in those cases in which vomiting has been produced by the action of the arsenic, and all that is necessary to be done is to give milk, which "should be drunk both before and after vomiting has begun, as it appears to be the best substance for enveloping the powder, and so procuring its discharge." Whenever the antidote is procured, it ought to be given every two or three minutes in dessert or table-spoonful doses, mingled with a little water; some have recommended syrup or mucilage to be used instead of water, but it is of no importance which is employed. If the antidote be vomited up, which very frequently occurs, it should be given until the vomiting and other bad symptoms have entirely ceased; indeed, the quantity ought not to be regulated by the amount of the arsenic swallowed, but rather by its effects on the symptoms.

The prognosis will be more favourable, the less the time which elapses between the administration of the poison and antidote, and the thicker the fluid in which the arsenic was suspended, because less of it adheres to the mucous membrane of the stomach.

London Lancet, April 4, 1840, p. 46—49.

18.—THE BEST MODE OF PRODUCING AND EXHIBITING THE TRUE PROTOXIDE OF IRON.

By M. Donovan, Esq.

[The Protoxides of Iron are soluble in the stomach, while the Peroxides are not so. Medical men, therefore, ought generally to prescribe the former; and will, no doubt, read the following communication from that able chemist, Mr. Donovan, with attention and pleasure:]

The only method known to me, by which iron can be exhibited in the state of protoxide, its solubility being preserved, is to administer it shortly after it has been precipitated, to protect it from contact of air, until it is administered, and to avoid subjecting it to any of those processes which have a tendency to increase its cohesion, as evaporating, boiling, or filtering.

As preparations of iron have a tendency to induce more or less constipation, it is rather serviceable, although not absolutely necessary, to combine them with a gentle aperient. A very small quantity of sulphate of magnesia may, therefore, be advantageously exhibited in a chalybeate. I find that calcined magnesia is a very convenient precipitant of protoxide of iron from sulphate of iron: for, as it is prudent to use a slight excess of magnesia, that excess is neither disagreeable nor hurtful: and the magnesia, by combining with the sulphuric acid of the sulphate of iron, produces sulphate of magnesia, while protoxide of iron separates, and is then, and for some time after, easily soluble in weak acids. Thus every object is at once attained.

With regard to the quantity of these substances which may be employed, I can only state the results of a few trials made on myself, and another person, who on my assurance of the dose I used, took a similar one. I began with half a drachm of sulphate of iron, well triturated with five grains of calcined magnesia, and an ounce of water. I then took two scruples, with eight grains of magnesia, without observing any effect from the dose, except the blackening of the fæces, and this it did in an extraordinary degree. Fifty grains of sulphate of iron, with eight grains of magnisia, caused the discharge from the stomach.

A newly made draught of this kind contains the iron in such a state, that it will instantly dissolve, if distilled vinegar be mixed with it. If the phial, in which it is contained, be well stopped, as by capping the corks with moistened bladder, the solubility of the contents will be preserved for several days. The precipitate sometimes grows pasty in the bottle after resting some time, but if shaken, the whole becomes again liquid.

It remains to consider the formula best calculated to present the protoxide in a state fit for exhibition; and the first step is to obtain a proper sulphate of iron.

Much of the sulphate of iron sold as pure, is prepared by re-crystallization from the sulphate of iron of commerce, obtained from iron pyrites. Precautions may not have been used for removing the copper; mere re-crystallization will not do it. Hence such sulphate is totally unfit for the purpose, as by daily use of it, a deleterious quantity of carbonate of copper would, at length, have passed through the patient. Neither will sulphate of iron, ever so pure, which has assumed a green colour, answer the purpose; for this, by decomposition, will afford a deep green precipitate, less soluble in weak menstrua, than is desirable. The sulphate of iron in crystals must be azure, or beryl-blue. Such must be best prepared according to the process of Berthemot, which is as follows:

Dissolve sulphate of iron, free from copper, in water sharpened by sulphuric acid, and crystallize it. Of this salt, take 500 parts; throw it in separate quantities into 550 parts of distilled water, kept boiling. When it is dissolved,

add eight parts of turnings of pure iron, and in a few moments, while the solution is still boiling, filter it through paper previously well soaked in water. The liquor, as it runs through, is to be received in a vessel containing a mixture of 375 parts of alcohol at 36°, and 8 of sulphuric acid, continually agitating the vessel. The protosulphate of iron instantly precipitates, in the state of a blueish-white crystalline powder. When cold, the alcoholic liquor is to be poured off, and the salt dried on bibulous paper. This protosulphate contains its water of crystallization, just as if it had been obtained from a watery solution.

The next step towards obtaining a proper formula, is to determine the quantities of calcined magnesia necessary for the decomposition of a given weight of protosulphate of iron.

One drachm of sulphate of iron is composed of

Sulphuric acid, ...	17.26 grains.
Protoxide of iron, ...	15.54 "
Water, ...	27.20 "
	60.

The quantity of pure calcined magnesia necessary to neutralize the sulphuric acid in one drachm of sulphate of iron, would be 8.63 grains: but it would be better to use 10 grains. By union with a necessary quantity of water, 27.18 grains, the result would be the formation of 43 grains of epsom salt, and elimination of 15½ grains of protoxide of iron.

Having thus determined the proper quantity of the ingredients, we come to the formula:—

℞. Sulphatis Ferri *cæruilei* Pulveris Subtillissimi, semunciam. Magnesiæ Calcinatæ, scrupula duo. Aquæ uncias sex. Tincturæ Quassiæ, ʒii.

Magnesiam tere cum aquæ pauxillo, et permistis quod reliquum est adde: postea adjice sulphas et tincturam: iterum paulisper tere, etquam primum in phialas sex divide, probe et protinus obturandas. Sumatur unus mane nocteque.

This dose is to be considered average; for delicate stomachs, the quantity may be a little less.

The mouths of the phials should be tied over with moist bladder, or dipped in melted wax. In this way the protoxide of iron will remain in its soluble state for two or three days: and it is in possession of its maximum power. Each draught will contain ten grains and one-third of protoxide of iron, and twenty-eight grains and two-thirds of sulphate of magnesia; and each day will be taken about a scruple of the former, and nearly one drachm of the latter, which would act as a very gentle aperient, and obviate the constipation which the protoxide might otherwise occasion. The taste of the draught otherwise disagreeable, is rendered merely bitter, but the iron is not blackened, or otherwise acted upon by the tincture of quassia.

It may be said, that this protoxide, by solution in acids found in the stomach, will once more form a ferruginous salt, perhaps as active, or even as deleterious as the original sulphate. The supposition, however, is contradicted by the fact, that the forty-grain doses in my trial, in no case produced any unpleasant effects. This is true, but I do not attempt to explain it; the aid of hypothesis would be necessary for an explanation. The *modus operandi* supposed by Dr. Becker, the proposer of the saccharrated protoxide, is, that it is "facilement absorbe par les sucs animaux." The only means in our power of testing the solubility of the protoxide in the stomach, is to prove that it easily dissolves in weak acids out of the stomach.

Next to the above draught, I conceive that the *pilules ferrugineux du Docteur Vallet*, are the next best formula, and preferable to the *sucre ferrugi*

neux of Becker and Klauer. I could assign my reasons for this preference, but it is rendered unnecessary by the Report made to the Royal Academy of Medicine, by MM. Soubeiran, Planche, et Martin-Solon. It may be proper to explain, that *sucre ferrugineux* is the same preparation as that which has been prescribed by some practitioners in Dublin, under the name of *protocarbonas ferri saccharisatus*.

Dublin Journal of Medical Science, March, 1840, *p.* 156—160.

19.—BLISTERS AND COUNTER-IRRITATION.

The blistering plaster which M. Trousseau prefers to all others, and is the one which has always been used by M. Bretonneau, is prepared by adding powdered cantharides to sweet oil, till the mixture acquires the consistence of an electuary. It is then to be nicely spread upon adhesive plaster, and may then be applied to the skin. The interposition of a piece of blotting-paper between the skin and the blister renders the application altogether more cleanly, and diminishes the risk of urinary irritation, without impeding the efficacy of the remedy.

This is the form of blister which MM. Velpeau and Trousseau have introduced from the hospital at Tours into those at Paris under the name of *vesicatoire Brettonneau*, and is infinitely superior to the numerous preparations which are vended by the French pharmacopolists under the name of *vesicatoires Anglais, vesicatoires par incorporation, &c.*

The vesicant effects of the cantharides plaster seem to be rendered more certain, if its surface is smeared over with the *huile de cantharides par ether*—for which there is the following formula in the last codex:—

Take of powdered cantharides 2 livr.

Sulphuric æther, a sufficient quantity.

Make a tincture by lixiviating the mixture, and draw over the ether by slow distillation. A green thickish oil, which has very strong vesicant properties, is thus obtained.

M. Trousseau has of late tried this *ethereal extract of cantharides* as a vesicant by itself in the following manner.

A portion of paper (such as is used by women for curling their hair) of the size of the wished-for blister, is to be laid upon a piece of diachylon plaster somewhat larger. A few drops of the *extract* are then to be poured upon it, so as to moisten it sufficiently, without however wetting it. This application causes heat in the part in about two hours, and, in the course of seven a blister is usually raised. Perhaps the medium time required is from eight to nine hours.

The extreme convenience and cleanliness of this kind of blister must certainly recommend it under many circumstances; and, as it is not more expensive than the blisters in common use, the facility of the preparation renders it well adapted to military and hospital practice. M. Bouillaud employs this style of blister almost constantly at the Hospital de la Charite; and already the *ethereal extract* is in great demand at many other of the Paris hospitals.

The extract is of a green colour and of the consistence of olive oil. It deposits a matter of a buttery consistence, which is excessively acrid and irritating. If incautiously applied to the skin, it produces a painful ulceration, which is often very difficult to heal. This deposite is readily soluble in oil, and the solution, if not too weak, is found to be an energetic vesicant.

M. Trousseau suggests, that, as the ethereal extract seems to contain all the active properties of cantharides, a convenient and useful mode of pre-

paring the tincture might be by dissolving a certain quantity of it in alcohol.

Medico-Chirurgical Review, April, 1840, *p.* 548.

[We cannot help reminding our readers of the excellent formulæ published by Dr. Granville, for the purpose of producing counter-irritation as will be seen by referring to the *Lancet*, for Oct. 27, 1838, and which we here extract.]

These counter-irritant lotions, are of three kinds.

Each kind of lotion consists of three ingredients:

1st. *The strongest liquor of ammonia*, A;

2nd. *Distilled spirit of rosemary*, B;

3rd. *Spirit of camphor*, C.

A. Saturate a given quantity of distilled water, contained in a glass receiver surrounded by ice, with ammoniacal gas, obtained in the usual way, from a mixture of equal parts of hydrochlorate of ammonia and recently slaked lime both reduced to a fine powder. The water may be made to take up nearly 800 times its bulk of ammoniated gas under the circumstances described; its specific gravity will then be about 872, and 100 parts of it will contain 33 parts of real ammonia according to Sir H. Davy's tables. This solution of ammonia will, therefore, be more than three times the strength of the liquor ammoniæ of the Pharmacopœia of London, 100 parts of which, at a specific gravity of 960, contains only ten parts of real ammonia. I have, therefore, called mine, "liquor ammoniæ fortissimus."

B. Take two pounds of the tips or smalls leaves of fresh rosemary, and eight pints of alcohol; leave the whole in infusion for twenty-four hours in a well-covered vessel, and after adding a sufficient quantity of water as will just prevent the empy-reumatic smell, distil over seven pints. The Pharmacopœia of London directs the essential oil of rosemary to be distilled instead with rectified spirit. Such a preparation I found unsuited for my purpose.

C. To four ounces of pure camphor add two pints of alcohol, so as to dissolve the camphor, which solution should be filtered. The present tincture of camphor of the Pharmacopœia of London contains one ounce more of that substance, and does not harmonize so well with my two other ingredients as the weaker preparation.

The three ingredients thus prepared, every medical man should keep always ready at hand in well-stoppered glass bottles, so as to be able to make extemporaneously, a counter-irritating lotion of any requisite strength, according to the nature of the case requiring that application on extraordinary occasions; but for the ordinary purposes detailed in my work, it will be better to keep both a milder and a stronger ammoniated lotion ready prepared for use.

The milder Ammoniated Lotion.—Assuming the quantity of lotion desired to be divided into eight parts, then the proportions of the ingredients will stand thus:

A—four eighths; B—three eighths; C—one eighth.

The stronger Ammoniated Lotion.—If the quantity desired be also divided into eight parts, then the proportions of the ingredients run as follows:

A—five eighths; B—two eighths; C—one eighth.

Although the changes of proportion here may be deemed trifling, yet the strength of the lotion is such that I never employ it except in cases of apoplexy, and for the purpose of cauterization.

A and B are gradually mixed together. The mixture becomes opalescent and somewhat turbid, and a peculiar highly agreeable ethereal smell is given out, different from the individual odour of either ingredient, although the extreme pungency of the ammonia be still discernible.

Before the third ingredient is added, it is desirable to clear the previous mixture, by the addition of a small quantity of alcohol, and to set the whole in a cool place.

The lotion must always be kept in bottles with a glass stopper; and their whole virtue depends on the accurate distillation and preparation of the ingredients, as well as on the careful admixture of the latter.

British and Foreign Med. Review, Jan., 1839, *p.* 292.

We also refer the readers to M. Gondret's

Pommade Ammoniacale, the preparation of which is thus described; Take of hog's lard seven drachms, of oil of sweet almonds one drachm and a half, and of liquid ammonia, (of twenty-five degrees) from five to six drachms. Melt the hog's lard, mix with it the oil, and pour them into a wide-mouthed bottle with a ground glass stopper; then add the ammonia, close the bottle, mix the contents together by shaking, and keep the mixture in a cool place.

The author's experience of the effect of his pomade ammoniacale was, like his observations on actual cautery, the subject of a memoir to the Royal Academy of Sciences, and of a report from the commissioners of that learned body, MM., Portal, Halle, and Percy. They express themselves strongly in favour of the remedy. It is much more prompt in its action, they say, than cantharides, exempt from the distress occasioned by the absorption of this medicine, and capable of much more varied effects. If the skin is to be excited, perspiration re-established, and some subcutaneous engorgement to be dissipated, light and hasty frictions accomplish these objects. If a rubefacient effect is sought, its application for one or two minutes, spread thickly on linen, answers the purpose. In case vesication is required, a similar application for five or ten minutes produces the effect. On the other hand, should absolute cauterization be sought without alarming the timidity of patients, or the prejudices of certain medical men against the use of fire, a somewhat longer application attains this end, so desirable in many neuralgias.

British and Foreign Medical Review, Jan., 1839, *p.* 65.

20.—TREATMENT OF RENAL DISEASE.

By Dr. Bright.

[Dr. Bright concludes his long but interesting paper in the last Guy's Hospital Reports, with the following observations, which seem to contain the outline of his treatment of renal disease:]

In concluding these observations, I may revert to the first object for which they were written; and trust that it will be collected from the various cases which have been adduced, that the conviction so often expressed, that the disease upon which the secretion of albuminous urine depends is in its commencement functional, is fully borne out; and that as long as it continues in that state, it is capable of cure, or of relief, by various means. I have already in a former paper spoken upon the means by which this relief is to be administered; so that I shall here only briefly touch upon one or two points.

In the first steps, and the more acute forms of disease, bleeding may be considered the most important remedy: but this is, of itself, wholly inadequate to cure, unless we purge freely, and at the same time call upon the skin to do its duty. Of all the measures for effecting this latter purpose, the strictest confinement to bed is the most effectual; and without that, I do not believe that in this climate we have a chance of cure. That preliminary, however, being adopted, antimonials are probably the best diaphoretics: but

the liquor ammoniæ acetatis is likewise very useful; and a simple saline draught of citrate of potash or soda is, I believe, when diligently persisted in, of much avail: and the warm bath, in its various forms, may in many cases be brought to act most beneficially.

Amongst the purgatives, I shall only mention, that elaterium and jalap, with the bitartrate of potash, appear to me the most effectual. When the disease has made further progress, and has become chronic, perhaps organic, I should still recommend the greatest attention to the full effects of purgation, and to the state of the skin, and to protection from atmospheric changes; and I am more and more impressed with the probability, that if a complete change of climate were tried, great benefit might result. A voyage to the West Indies, and a residence in one of the more healthy islands, often produce a great change in the constitution acting chiefly upon the pores of the skin. We have, at least, the negative experience, that confirmed cases rarely recover in this country, whatever treatment be adopted; and the skin being always more or less inactive, suggest most forcibly a change of climate as likely to promote its function. It is the doubt and uncertainty with which this disease is often viewed, that interferes with our recommending this bold measure, or, if recommended, interferes with its adoption: and I trust that the perusal of a few such cases as I have brought forward on this occasion will assist in producing a conviction of the actual existence of this disease, and of such an approach to incurability by any means we at present possess, that a physician should feel no more compunction in recommending the expatriation of his patient with albuminous urine, than he would in a case of incipient or threatened phthisis.

There are certain remedies whose actions in this disease are less obvious than those to which I have referred; but many of them probably act by affording a degree of stimulant or astringent action to the kidney: of these I may mention the mineral acids as applicable in the declining stages of more acute attacks: the uva ursi, in its different preparations, in the chronic disease; the pyrola umbellata, and the diosm acrenata where great irritability of the urinary organs exists—a remedy which I have been led to adopt, in many cases, from the very favourable reports of Sir Benjamin Brodie: nor have I been disappointed of some good effect, though I should perhaps employ with greater confidence a long-continued course of soda, conium, and uva ursi. One thing, however must be kept in mind, that whatever remedy is given to overcome a disease so chronic and confirmed, must be administered with exemplary patience and perseverance.

Guy's Hospital Reports, No. 10. *April,* 1840, *p.* 160.

[Dr. Barlow, one of the editors of these reports, strongly recommends tartarized antimony in this formidable disease: with respect to which he says:]

It is not merely as a diaphoretic that I would recommend the tartar emetic in the acute form of this disease: it is on account of its power of lowering the heart's action, as well as its local effects upon the capillaries, when it reaches them through the circulation; whereby it diminishes the inflammation in the superficial capillaries of the lining membrane of tubuli uriniferi; for that such a state of the tubuli exists in the early stage of the disease is, I think, made apparent by the condition of the kidneys, in all the recent cases which have been examined.

With regard to the dose of the remedy, I would observe, that where the pulse is hard and full it may be given in such doses as in the first instance to produce nausea; but where there is a low state of the system, the antimony may be given in smaller doses, frequently repeated, so as to reach the capillaries without producing depression. I have never found it necessary to give more than half a grain at a dose to an adult; neither have I attempted

to push it to the greatest extent possible; the object not being to give heroic doses of the remedy, but, if possible, to cure the patient.

At the same time, I cannot conclude without hazarding the expression of the belief, that the chance of recovery may in some measure depend upon the particular tissue of the organ affected; for it is by no means improbable that there may be varieties of the disease, as different in that respect as pneumonia and bronchitis.

21.—REMARKS ON SARSAPARILLA.

By Dr. Hancock.

(Abridged from the Med. Bot. Transactions.)

[Dr. Hancock proceeds first to treat of the best way of choosing good sarsa; then of obtaining the active properties; and thirdly of the methods of preparing it for medicinal use.

We confine ourselves at present to the last subject.]

1. *Method of preparing sarsa by fermentation.*—The root is bruised and fermented with guaiacum bark, sassafras, (ocotea) and several other plants of the country, adding liquorice, brown sugar, and a little yeast to hasten the fermentation; on these ingredients, when well bruised, pour boiling water; let it be stirred occasionally, and stand for a few days in the sun, or an equivalent heat, until fermentation is produced, after which it is fit for use, and the patient may commence by taking a small draught twice or thrice a day, and should increase the dose till some effect is perceived.

It usually produces an increased perspiration, and generally augments the urine and alvine discharge. Whether the disease arise from a rheumatic, scorbutic, syphilitic, or other foul taint of habit, or the abuse of mercury, the patient commonly obtains relief in a short time. The same remedy is there* found of great effect in removing obstructions of the internal viscera, as the liver, spleen, and kidneys. In ulcers and skin diseases, this compound is also a very efficacious remedy in a variety of chronic diseases.

2. *Another method may be employed, viz: by addition of acids.*—Although fermentation is one of the most efficient means of obtaining the essential or more active properties of vegetables, it is not always convenient, requiring time for the preparation. I shall, therefore notice another process, which I have experimentally found to be the most ready and effectual method for extracting the active properties of this, as well as of vegetable remedies in general; that is, to infuse the bruised roots in boiling water, adding a little spirit and muriatic or sulphuric acid, and press them; repeating the infusion in boiling water, and again pressing out the liquor. A quart of this preparation will have more effect than gallons of the decoction prepared by the direction of the Pharmacopœias.

3. *A Compound infusion may thus be prepared:* By addition of wauk root (Bignoniacea,) kuruta, bark of guaiacum, of mara or haiowa balsam, with liquorice and aniseeds; it forms a most valuable alterative, restorative, and antihectic remedy; one of great power in gout, rheumatism, cutaneous eruptions, internal or external ulceratons, and even in vomica of the lungs, and is very efficacious in obstructions of the viscera. It is also a powerful remedy in syphilis, and one that does not require the assistance of mercury. This will scarcely be assented to, but the assertion would not be advanced had I not seen its effects fully demonstrated. It operates without deranging the general health, and forms the best remedy against the ill effects of mercury. Yet this may occasionally be given in a very light course, (avoiding

* At Angostura, and at Para on the Amazon.

salivation,) or antimonials, alternated with alkalies, chalybeates, or with iodine: affording a method which may be resorted to, with much confidence, in leprosy, in foul or cachectic diseases, and in glandular, scorbutic and cutaneous affections. Its effects are greatly assisted by the employment of the vapour bath, warm clothing, and a moderate, bland diet, the use of milk and vegetables, barley water, &c. With such a regimen it may be employed with vast advantage, not only in chronic complaints, but also in many inflammatory ones; and with the above mentioned auxiliaries it is one of the most effectual remedies in *scrofula*.

The preparation will remain unchanged for a great length of time, by adding a few drops of siruba, or essential oil of cloves, which, with the acid, prevents the growth of vegetable fungi, or any elementary change.

Muriatic acid (or suphuric) is often added as an adjunct to strained infusions and decoctions, but in the method herein described, i. e., by *previously* adding the acid, we evolve the alkaloid or the more active principle of the vegetable, which, in general, is found to be but partially soluble in simple water; at the same time other medicinal principles are preserved, not rejected, as in the process for obtaining quinine and other alkaloids: for we should not assent to the false induction, that these (quinine, &c.) contain all that is valuable in the substances operated on. If such were the case, our infusions and decoctions, as hitherto prepared, would in fact possess little or no value; for the quinine, it is found, remains in the dregs or residue of the common decoction or infusion of cinchona.

I should judge, then, that the method now recommended might be employed with important advantages in forming most other vegetable infusions, decoctions, syrups, and extracts.

[The author then advances an opinion, with which we cordially agree, and in which almost every practical man will coincide. He says:]

A judicious *combination* of old remedies is of more importance, perhaps, than researches directed to new discoveries; and to this point I could wish to draw the attention of the Society, because, since men have perceived the folly of ancient poly-pharmacy, as instanced in the Mithridates, Theriacs, &c., they have run into the opposite extreme, and substituting endless chemical and pathological speculations, they have rendered medicine of less avail, by extreme simplicity of prescription: hence, notwithstanding the *march* of modern science, it does not appear that the practical or only useful part of medicine is much advanced; I should rather say, that, in point of real utility or efficiency, it has retrograded since the time of Sydenham. The fact is, that along with many absurd reveries of the ancients, the moderns have rejected their practical rules, formed on the experience of preceding ages; for it must be acknowledged that the more useful part of medicine has been derived chiefly from empiricism, that is to say, from observation and experience.

Transactions of the Royal Med. Bot. Society, vol. 1, p. 41—48.

22.—REMARKS ON CONIUM.

By W. H. Judd, Esq.

(Abridged from the Med. Bot. Transactions.)

[After detailing a number of experiments on animals, to show the value and strength of the extract of conium, as procured from different druggists, Mr. Judd draws some practical conclusions, which will be read with interest. On comparing the effects of conium with opium, we find a most remarkable difference after death, as will be seen by the following comparison:]

A Comparative view of the effects and changes after Conium and of those after Opium.

Conium.	Opium.
Brain unnaturally free from blood; Ventricles almost dry;	Brain gorged by blood. Ventricles full of serum.
Lungs empty of blood;	Lungs so full of blood that it runs out in a stream on cutting them.
Stomach, its villous coat and œsophagus, white;	Villous coat and œsophagus red.
Right side of the heart gorged by dark blood left empty;	The heart's cavities all containing blood.
Heart dead to stimuli;	Heart's state as to excitation unknown.
Intestines active and white;	Intestines inactive, red, and inflamed.
Blood, dark and fluid in both veins and arteries;	Blood found fluid at times, not always.
Death of the heart;	Death of the brain I conclude from other symptoms.

From comparing the state of the viscera, we have here positive proof that the effects of preparations from these two plants differ widely. Indeed I much doubt whether conium, which has hitherto been classed as a narcotic, is, by its direct action, capable of producing sleep, by rendering the vessels of the brain turgid, as opium does: on the contrary, for in the animals experimented upon, the brain was found exsanguined and blanched after conium had been given, to an extent that destroyed life. During these experiments I observed, a defluxion being produced in the human subject, and a cough being kept quiet from breathing the vapour of the muriate of conium, which pervaded the room in such volume that it clung to our skins, tasted upon our lips, and impregnated our clothes for days, yet no disposition to sleep was induced by it. Last night, (April 4th,) I took a dose of the best extract to ascertain its effect. At first I felt excited and kept awake, and the heart acted during that time quicker than natural: next the breathing became slower, the contractions of the heart feeble, and the pulse small and weak. I fell asleep while counting my pulse, and found on waking in the morning that I had just overslept my usual time by one hour. Conium in small doses, by its action on the heart, lessens for a time the volume of blood sent to the brains and muscles, and thus undoubtedly produces a state of quietude that disposes in a remarkable degree to repose.

[Mr. Judd concludes his interesting paper by drawing our attention]

To the vast power displayed (during the experiments) by its extract in lessening the quantity of blood sent to the brain and medulla spinalis—to its lessening the forcible contractions of the heart; virtues possessed by few medicines with which we are acquainted; to which evidence I may add the no trifling experience of Professor Christison, when he says that conia exhausts the nervous energy of the spinal cord. These physiological facts at once suggest that conium should prove an invaluable remedy in the treatment of three very fatal diseases for which we possess no specific, viz., hypertrophy of the heart, phrenitis, and inflammation of the medulla spinalis. The latter disease is one that, like Atropos in the dark, cuts the thread of life in many cases wherein the cause of death (the theca not being opened) is never discovered. In the treatment of such disease, after depletion, I should recommend that small doses of the extract of conium, without waiting for the action of purgatives, be steadily repeated every two hours, until the action of the remedy is manifested in the system, or mitigation of the symptoms ensue. In hypertrophy of the heart, the remedy should be given rather more

cautiously; and by properly-graduated doses, I imagine we might regulate the hurried and forcible contractions of that viscus, and bring its action almost to nature's standard. Lastly, habitual costiveness, and want of secretion in the bowels, may often be remedied by two or three grains of extractum conii, with as much pilula hydrargyri given at bed-time; this will be slowly followed by regular evacuations. The above combination of drugs acts particularly upon the rectum; and, when the dose is too often repeated, produces in some a sort of chronic dysentery. I throw out these hints to the profession after having witnessed the power of conium in reducing the action of the heart, to exsanguine the brain and medulla; and may safely assert, if physiological experiments teach us any thing as to the nature of remedies that then is conium a valuable auxiliary in these diseases.

With respect to the time and way of gathering the conium, which is of the greatest consequence, if we wish for the full power of the drug, Mr. Judd says:

I should say in June, just as it breaks into flower, and those growing in dirty, boggy situations should be preferred, as they are the most potent. This has been practically proved by a medical friend of mine.* It is undoubtedly needful that the collectors should taste each stem as they gather it, and cast away such as are tasteless, and too young to be sapid. A learned gentleman of this society in one of his excursions, (I allude to Dr. Hancock,) had the ingenious curiosity to taste stems of growing conium, on the Banks of the Bristol Channel; and he kindly communicated to me, that late in the year, about September, few of them possessed any flavour, and that many of them then were totally useless.

Med. Bot. Trans., vol. 1, *Pt.* 4, *p.* 150—157.

[In the Medical Gazette, for May 22, is a letter from Mr. Bently, oper. chemist, in which he states that the action of conium depends on the quantity of conine which it contains.
He further says:]

The best and most effectual mode of administering conium is, I conceive, by expressing the juice, and preserving it with alcohol; some of which I have had the honour of submitting to the best authorities on the subject: which, although resembling in colour the tinc. zingiberis of the London Pharmacopœa, contains a very large quantity of conine, and is a very energetic and certain preparation. To ascertain whether conine be present in the extract, it is only necessary to rub a small quantity in a glass mortar with liquor potassæ, when a peculiar odour, somewhat resembling animal oil, will be given off; by bringing the vapour of hydrochloric acid in contact with which dense white fumes will be given off, clearly demonstrating the presence of conine. The evaporation of this juice under the exhausted receiver of an air-pump, produces an extract of a dullish brown colour, but possessing great power which can only be referred to the conine which it contains, and which may be readily recognised by the above admirable test, first proposed by Dr. Osborne.

Medical Gazette, May 22, 1840, *p.* 346.

23.—ON THE BARK OF THE ULMUS CAMPESTRIS (OR ELM).

By G. G. Sigmond, M. D., &c.

[Dr. Sigmond thinks that our Island abounds with medicinal agents, which have not been sufficiently attended to by us, and among the rest is the

* Mr. Goodger, late of the Marylebone Infirmary.

bark of the elm, and especially the inner bark, which abounds with a mucilaginous principle, which disappears on being too much boiled. The best time to gather it is in spring, and the most desirable parts are the smaller branches and twigs. He says :]

Four ounces of fresh elm bark bruised, boiled in four pints of water form a thick decoction.

In cases of scaly disease the *Ulmas campestris* is more particularly serviceable; in all the varieties of lepra it produces a most marked influence. In a young girl admitted into the hospital—a case which had excited amongst my pupils the most marked interest, as well from the urgency of the symptoms as their inveteracy—it quickly proved the truth of my previous expectation. The disease had commenced about two years before her admission; notwithstanding she had enjoyed opportunities of being under the care of some experienced physicians, the skin had never once been free from large dark brown scaly patches, which were copious upon the legs and arms, and more especially upon the knees and elbows. The bend of the arm presented a very singular appearance from the irregularity of the surface of these scales, formed by the coalescing of a number of small ones and the deep furrows made in their centre. These thickened laminæ were, at the time of her admission, about the size of a half-crown upon the joints, whilst smaller scaly patches extended themselves over the greater part of the extremities; they were nearly of a circular form, their borders a little elevated, and whilst the centre wore a shining appearance, the circumference had a red and somewhat angry surface; this state was unaccompanied by pain, by itching, tingling, or any sensation, besides that of stiffness on moving the limbs, and some degree of soreness when any but smooth surfaces came in contact with them: the little girl was in every other respect in good health, enjoyed a good appetite and sound sleep, but had formerly occasionally complained of pain on her right side. The bowels were regular, the urine straw-coloured and gave very slight indication of the presence of acidity. Three times in the course of the day four ounces of elm bark in decoction were administered; the recovery was rapid: once or twice only were cathartics used, for they generally determine too much to the bowels, and hence, prevent that action upon the kidneys which I believe to be essential to the operation of the bark. The scaly crusts gradually detached themselves from the skin, leaving the cuticle red and shining, which began from the centre to assume a more healthy appearance: the larger dark brown patches were the first to fall off, and as the skin began to recover, only large red lines in the circumference were visible.

I have likewise found it very serviceable in tinea capitis, and more especially when it has been used as a wash externally. In those extensive papulous eruptions, known by the name of lichen, which usually terminate in scurf, the lichen simplex, which attacks the face and skin sometimes periodically, very quickly yields to the remedy; and in the milder cases of erysipelas, when the constitution has not in any way participated, I have been in the habit of using this remedy with a success that has now enabled me to lay the result of my observations before you.

In those affections of the skin where the papulæ are in a state of high irritation, amounting to inflammation, I have uniformly found lotions or applications of mercurials, such as the unguentum hydrargyri nitratris, or ointments of lead, to be rather injurious than beneficial; in such cases it is that I have observed so much benefit from the bark of the elm, internally taken, and externally applied, and in almost every stage of cutaneous disease. There are likewise some states of the skin in which papulous eruptions and erythematic blushes are indicative of diseased states of the internal mucous membranes, and likewise of various dyspeptic symptoms. Thus we observe where leucorrhœa exists, or where disease has been induced by dram-drink-

ing, that redness of the skin, and disordered functions of the skin are visible; in such instances the use of the elm bark for some weeks, with attention to diet has been productive of the best consequences, and I have had the satisfaction of seeing some of those eruptions, which have for years baffled every attempt of the medical man, yield to a determined course of the elm bark. It is of importance to continue it for some time, and to attend to the state of the bowels during the period in which it is taken. The state of the urine should be carefully observed; and it will be found that, after some little time, much acid will become developed, which most probably is determined from the blood, and would have been deposited in the skin and have produced some of the disordered states which the elm bark appears destined to avert.

Med. Bot. Trans. vol. 1, *Pt.* 4, *p.* 169—172.

24.—ON THE FUCUS AMYLACEUS, OR CEYLON MOSS.

By W. B. O'Shaughnessy, M.D.

[Dr. O'Shaughnessy, of Calcutta, has written an interesting article in the last number of the Medico Botanical Transactions, of this useful vegetable. His analysis is as follows:]

Vegetable jelly	54.50
True starch	15
Wax	a trace
Ligneous fibre	18
Gum	4
Sulphate and muriate of soda	6.50
Sulphate and phosphate of lime	1
Iron	a trace
	99
Assume the traces of wax, the iron and loss, at	1
Total	100

In the first place, from the tenedency of pectin or vegetable jelly to form insoluble compounds, with saline and earthly bases, it is necessary to steep this fucus for a few hours in cold rain water, as the first step in its preparation: this removes a large proportion, if not the entire, of the sulphate of soda, leaving all the gelatine and starch. It should then be dried by the sun's rays, and ground to a fine powder; I say ground, for cutting or pounding, however diligently or minutely performed, still leaves the amylaceous globules so mechanically protected, and so closely involved in an external sheath of tough ligneous fibre, that scarcely a particle of the starch can be extracted by boiling, even though the decoction is prolonged for several hours. For the experimental proof of this statement, the reader is referred to the analysis, Sec. B., 1, 2, 3, and 5.* When ground, on the contrary, boiling for twenty-five minutes or half an hour, dissolves all the starch and gelatine; the solution while hot, should be passed through muslin or calico, and thus the ligneous fibre is removed: lastly the strained fluid should be boiled down till a drop placed on a cold surface gelatinizes sufficiently.

The following is the method by which the nutritive qualities are best obtained:—

Put into a clean stew-pan a table spoonful of prepared marine moss, add to it a pint and a half of hot or cold water, boil it gradually for twenty minutes, then take a little in a spoon and let it cool for a minute or two to see if the liquid is sufficiently boiled to congeal firm: if not, let it boil until it is, then strain it through a cloth into another stew-pan while it is warm, so as to

* For which, see Med. Bot. Trans. Pt. 4. Vol. I.

draw all the liquid from the sediment produced by the moss. The sediment to be well squeezed. Add to the liquid a table spoonful of fine loaf sugar, half a table spoonful of lemon juice, a table spoonful of sherry, or not, at the option of the maker, add a small piece of lemon peel, and a very small piece of cinnamon; boil the whole gradually for ten minutes, and pass it once or twice through a piece of flannel into a basin or tumbler, and in ten minutes it will be fit for use.

Should it be required to be very clear and transparent, (which is not necessary for an invalid, as by clarifying it partly loses its strength), add the white of an egg, well beat into froth, before the second boiling, and taking care that after the second boiling it rests for some minutes by the fire-side, with some hot charcoal on the cover of the stew-pan so as to render it perfectly clear; otherwise, by adding the white of an egg, it will have the appearance of milky white, which is not so pleasing to the eye, although in quality the same. When clear and of a lemon colour, pass it two or three times through a flannel jelly-bag: let it cool, or it may be taken in a liquid state, if preferred by the patient.

This jelly is equally good for the table as for the sick chamber, and will congeal in the hottest day without ice. Blancmanges and Italian cream can be made with this marine moss without the addition of isinglass; but in that case the jelly must be made much stronger before it is mixed either for the blancmange or cream, and at all times it must be blended when it is warm. The quantity it will take for a mould of either is two table spoonsful of moss to a quart of water, and that reduced to half a pint, which will cost about sixpence only, whereas, the isinglass would cost at least three shillings.

The Ceylon marine moss has also this great advantage over isinglass or any other moss that is known at present, that it will stand firm and good for twenty-four hours in the hottest days we have in India; whereas, it is well known that neither isinglass nor any other will stand firm for half an hour, not even with the aid of ice. The prepared moss also possesses another great advantage over all others, that a most delicious gelatine can be made from it in about fifteen or twenty minutes; whereas, it would take hours before any sort of gelatine could possibly be obtained from any other source, either animal or vegetable; and therefore, for the sick chamber, I consider this substance a very great acquisition, where time, with an invalid, is often an object.

The Ceylon marine moss has been pronounced by the whole of the faculty of Calcutta to be unequalled for its delicate and nutritious qualities, and it has been particularly and highly recommended for the use of the sick. When all other nourishment has failed, this has proved successful; and I have no doubt that, when the article is better known by the faculty of England, it will be much more appreciated, and will receive the same patronage and support which it has done from the whole of the faculty in India for the last thirteen years.

Med. Bot. Trans., vol. 1, *Pt.* 4, *p.* 184—193.

[Appended to this account are certificates from the most eminent men in Calcutta, all highly approving of the article.]

25.—CORRECT VACCINATION AND IMPEDIMENTS THERETO.

From the Report published by the Provincial Medical and Surgical Association.

The only perfect test is that which arises from the insertion of the variolous lymph, but as that is on many accounts objectionable, it is better to find out if possible some other.

The first to which we would advert, is the regular progress of the vaccine vesicle, and we would lay it down as an axiom never to be forgotten, that no one is qualified to speak of its effective character who has not, at suitable periods, noted its progress. The genuine disease can only be produced by pure lymph from a regular source. The time for taking this lymph, according to Dr. Jenner, is between the fifth and eighth days, and before the formation of the areola. Others have recommended the use of lymph taken at a much later period; but this we believe to be a very questionable practice, and ought never to be followed. It is very true that the affection may be propagated by virus found in the scab, but this only succeeds when active lymph is preserved in a dried state within the scales.

A test, dependent upon the successful progress of vaccination, was very early noticed by Dr. Jenner, and subsequently brought forward by Mr. Bryce, of Edinburgh. He proposed that some fresh vaccine lymph should be inserted into the patient a few days after the first vaccination. This practice was founded on the observation that the second vaccination proceeds with accelerated speed provided the first has taken effect. It is a very simple and beautiful illustration of the constitutional effects of vaccination, and deserves to be encouraged. An experienced eye will for the most part be able to detect any deviation from the true vesicle. Unfortunately, the means of making correct observations are often denied to medical men, and any thing that would secure greater attention to this branch of the subject would be of high value, and unquestionably would have prevented many of the failures that have recently taken place.

The second point demanding unvarying assiduity, is the character of the lymph employed. It never ought to be taken from a vesicle which deviates in the least degree from the perfect standard, nor from a patient labouring under any cutaneous disease. It is to be feared that these rules have not been punctually observed; and that deviations have been propagated, which afford varying degrees of security, according as they approach to, or recede from the healthy character.

A third point which ought ever to be insisted upon, is the leaving one or more vesicles to run their course without being in any way disturbed. This canon was introduced at a very early period, but we have more than cause to suspect that it has been often defeated, either by the carelessness of parents, or the hurried manner in which vaccination is sometimes performed.

Another point on which perhaps too much stress has been laid, is the appearance of the cicatrix. It is true, that after regular vaccination, it generally assumes an uniformity of aspect well known to medical men. The medical officers of the army and navy are compelled to rely a good deal on its appearance; and all recruits on whom it is supposed not to be perfect, are subjected to vaccination. The experience obtained from these services, is, so far as it goes, in favour of information derivable from this criterion. We are satisfied, however, that by itself it ought never to be absolutely trusted, and we must repeat here what we have already observed, that nothing but a watchful inspection of the progress of the vesicle will justify any one in speaking with confidence of the security likely to be obtained.

From all we can learn, we are inclined to believe that though the presence of a perfect cicatrix is not a sure sign of protection, its absence must be held to speak strongly against the existence of vaccine influence. The peculiar appearance of the cicatix is caused by the reticulated or cellular structure of the vesicle. The same organization occurs also in variola. Now, if the vesicle has been repeatedly opened or broken, the ulcerative process that succeeds destroys the organization of the cells, and leaves a cicatrix nearly smooth, instead of the well-defined indented surface, which may for the most part be seen after complete vaccination. It may also be observed that many persons who have been extensively marked and seamed by

small-pox have had subsequent attacks of that disease, proving that after perfect human small-pox, as well as after perfect cow small-pox, a second attack may occur.

Our correspondents amply justify us in laying down the foregoing principles; and we also think from the evidence before us, that vaccine lymph, though passed through a great number of subjects, and used for a great number of years, does not necessarily become deteriorated. This, however, can only be said when unceasing attention is paid to every successive transmission; for if a deviation commences, it may be perpetuated, and afford a gradually decreasing protection. There is no doubt that lymph of this kind has often been used. We have satisfactory illustrations of this truth from several of our returns.

The influence of cutaneous diseases on the progress of the vaccine vesicle is a point, too, demanding greater attention than it has hitherto obtained. At a very early period Dr. Jenner discovered that the affection was very much modified in its progress by the scaly tetter, and those affections described by Dr. Willan under the term *psoriasis*, as well as those vesicular eruptions commonly called herpetic. He observed that vaccination performed on a skin occupied by any of these diseases, "produces every gradation from that slight deviation from perfection, which is quite immaterial, up to that point which affords no security at all."

It does not uniformly happen that vaccination is thus impeded by the pre-existing cutaneous maladies; but wherever the disturbance is in the slightest degree manifested, the vaccination ought to be distrusted, and repeated as soon as the skin has been brought into a healthy state.

It is a very long time since these truths were impressed upon the public mind; but we have had many proofs that they are not yet sufficiently considered; it is, therefore, our duty to recall them. Dr. Jenner's last publication particularly refers to this point of practice; and we know that it caused him much disquiet that his admonitions and instructions were so little heeded.

We will conclude this subject by an extract from one of Dr. Jenner's unpublished letters. "The greatest of all impediments to correct vaccination is that which arises from an herpetic state of the skin; indeed compared with this, all the rest are as dust in the balance; and when the rules which I have again and again laid down respecting this point, and for so long a period, are attended to, then, and not till then, will the confidence of the public be fully established as to its preventive power."

Medical Gazette, Feb. 21, 1840, *p.* 825.

26.—CASES OF MORTIFICATION OF THE MALE GENITALS, GIVING RISE, AS IS SUPPOSED, TO FATAL FEVER BY INFECTION.

By Robert Paley, M.D.

The first case was that of a stout man, aged thirty, by profession a teacher of music, residing in a village near Halifax, and a married man of very regular habits; the surgeon who was in attendance informed me that he had seen him, for the first time, on the preceding day, and that the patient informed him that it was only on the previous day that he had first felt some uneasiness in the scrotum; that it very soon became enlarged and inflamed, in which state it was when the surgeon first saw it; he immediately applied a dozen leeches, and afterwards ordered fomentations and purgatives. On the following day I was consulted, being the third day from the commencement, when the whole of the scrotum and the penis had assumed a dark red colour, with here and there a black gangrenous spot; the tongue was dark coloured as in

typhus, and the pulse indicated debility. We agreed to give our patient decoction of bark with porter, and to apply an ale poultice, with lint dipped in melted unguentum resinæ flavæ. This plan was continued, with the occasional addition of sp. terebinthinæ to the ointment, until the whole of the scrotum, prepuce, and a considerable part of the penis, sloughed off. The patient's strength was supported, and in the course of a few weeks he recovered so far as to live seventeen or eighteen years, when he died I believe of phthisis. His death took place some years after I had left that neighbourhood.

The second case was that of a farmer, about thirty-five years of age, residing a few miles from Ripon, who thought that he had caught cold, which had brought on some itching of the penis, and scrotum, both of which in the course of two days, became very much inflamed and enlarged; on which account he sent for a surgeon, who took blood from the arm, applied fomentations, and gave him purgative medicines. On the following day, to his great surprise and dismay, a gangrenous spot appeared on the scrotum. The blood taken exhibited no indication of inflammation. Before he left the house I saw the patient with him, and told him what in my opinion, would be the result, which he could scarcely credit: I then gave him an account of the former case, and as far as lay in my power, put him on his guard. In this case the tongue exhibited the same appearances as in the former. We gave decoction of bark in the porter, and applied an ale poultice, with dressings similar to those employed in the former case. The inflammation extended along the abdomen as high as the umbilicus, above which there was an eruption resembling the ecthyma cachecticum of Willan. Suppuration took place above the pubes, the whole of the scrotum and prepuce sloughed off, and the patient is convalescent.

During my attendance in the first case, one morning, whilst the surgeon was dressing the patient the scrotum and the penis being in a gangrenous state, a messenger came to request him to go to a woman in labour who resided about half a mile from our patient, and he obeyed the summons without loss of time. Four or five days after this, on meeting again, he said, "you will recollect that I was sent for to a woman in labour on such a day." I replied yes, and what of that? "She is dead; every thing seemed to be going on well until yesterday, when she was seized with a violent pain in the region of the uterus, and she died before I had time to do any thing to relieve her." In the course of two or three days, on meeting again, he said, "It is very odd, Dr. Paley, I have lost another patient in the same unaccountable way as before;" and the next morning at our meeting, he stated that he had another patient about two miles off seized in the same manner, whom he requested me to visit along with him. After seeing this patient, I told him that she was labouring under puerperal fever, and before we left the house he was sent for to visit another woman whom he had attended in labour in the same village. I accompanied him, and found her also the subject of puerperal fever. I believe that he had in all six cases of this disease.

I inquired of nearly all the general practitioners in Halifax and the neighbourhood if they had any cases of puerperal fever, but not one could I hear of; indeed, most of the medical men owned that they had never seen a case of it in the whole of their practice. About the same time I was requested to visit a married lady, aged fifty-four, who resided in the same village as the teacher of music, betwixt whom, however, there had not been any intercourse but she had visited repeatedly the first woman who had died so unexpectedly. I found that she had been seized, on the day previous to my seeing her, with violent pain of the bowels, which had continued to increase in spite of the means employed. When I arrived she was *in articulo mortis*, and expired before I left the room, which was twenty-six hours after the time she had first felt any sort of uneasiness. In the present day this case would very proba-

bly have been considered as Asiatic cholera; and it is to be regretted that we were not permitted to make a post-mortem examination.

There is not the slightest doubt on my mind that the surgeon who was in attendance was the means of communicating something (call it what you please) from the patient labouring under the disease of the scrotum to the lying-in women, which in them produced puerperal fever; and with regard to the lady last mentioned, the first case of disease after parturition, which in all probability was that of puerperal fever, produced in her a species of enteritis, which in its progress bore a considerable resemblance to the disease of the music-master.

I pointed out these circumstances to the surgeon, and at the same time advised him to go from home two or three weeks, and to have his clothes washed and fumigated; he did so, and the plague (for such it seemed) ceased. These circumstances I also mentioned to the surgeon in attendance on the case which has recently occured in this neighbourhood, I advised him to wash his hands well previous to leaving the house of his patient, and not to attend any woman in labour or after her confinement without first changing his dress. Notwithstanding this precaution which I believe he rigidly observed I received a note from him a few days ago, stating that he had some unfortunate cases of puerperal fever.

Med. Gazette, Dec. 6, 1839, and British and Foreign Medical Review, April, 1840, p. 571.

27.—ON DISEASES OF THE BRAIN DEPENDENT ON DISEASES OF THE HEART.

By Robert Law, M.D., Fellow of the College of Physicians, Physician to Sir Patrick Dun's Hospital, &c., &c.

[Dr. Law brings before the profession in a very able paper in the Dublin Journal of Medical Science, for May last, his views of those diseases of the brain which are chiefly owing, not, as is generally supposed, to the *excess* of blood in the brain, (which excess may arise either from too great a determination to it, or from a congested state of it owing to obstruction of the blood in the lungs or other parts, from diseases of the heart,) but to the *deficient supply* of it, arising from diseases either of the sigmoid or mitral valves.

He states that Dr. Corrigan was the first who accurately described this disease and the perniciousness of the usual mode of treating it by depletion, instead of by stimulation; and as it is a very important pathological distinction, and which is not sufficiently known or attended to by the profession, we take the liberty of placing a few extracts before our readers.

If we are called to a case of diseased brain, accompanied by hemiphlegia, or symptoms which would at first sight indicate congestion or inflammatory action, it is our duty immediately to ascertain if these symptoms may not be owing to disease of the heart or valves; and if we suspect that there is disease of the aortic valves, causing hypertrophy of the left ventricle, and preventing the blood reaching the brain with sufficient ease; or if we suspect either a too open or a too contracted state of the mitral valves, causing in the former case a regurgitation of blood from the ventricle, and in the latter case a difficulty in its course into the ventricle from the auricle—we must be on our guard not to deplete but to stimulate; as is very clearly shown to be correct practice by Dr Law in several cases which he relates. He affirms that if there be obstruction to the flow of blood before the arteries going to the brain are given off, that disease of that organ will not be owing to a fulness of

blood in it, but to a deficiency: but on the other hand, if obstruction exist beyond the origin of the cerebral arteries, then the regurgitation of the arterial blood may very probably be towards the brain.

Dr. Law says:]

Pathologists have almost entirely confined their attention to the excess of the normal quantity of blood, or the congestion produced in organs by disease of the heart, but have overlooked the deficiency that must necessarily result to other organs, and consequent hurt to their nutrition and function. Thus in disease so affecting the mitral valve as to lead to a considerable narrowing of the opening between the auricle and ventricle, exclusive attention has been directed to congestion of the lungs, liver, &c., and no notice has been taken of any ill effects resulting to other organs from their supply of blood being proportionably diminished; a diminution, the expression of which we have during life in a small pulse, and in the midst of which the beat is sometimes altogether wanting, denoting the almost entire retrograde motion of the blood from the ventricle into the auricle through the imperfect valvular apparatus; and which we find indicated after death by the aorta being so reduced in size as not to exceed the common carotid; a diminution which it has undergone in obedience to the physiological law which establishes a relation between vessels and the size of the stream of fluid which they convey. It is to the effects of this diminution of the quantity of blood upon the brain to which we would now direct attention, a point of pathology which we believe to have been hitherto almost, if not altogether overlooked.

The first case which attracted the attention of Dr. Law, was in the Richmond Hospital, in 1834, and from this he drew the conclusion:—

That ramolissement of the brain, the result of disease of the heart, is not the invariable effect of the blood impelled to the brain with undue violence, but that it sometimes takes place under precisely opposite circumstances. The anemic condition of the brain, and the smallness of the aorta and the branches proceeding from it on the one hand; and the congested state of the lungs with the pulmonary apoplexy on the other, lent their united testimony in proof of this. By as much as the brain was deprived of its due supply of blood, by so much were the lungs over supplied; and that this state of things was of considerable duration we concluded from the diminished size of the aorta and its branches, which was a physiological accommodation of these vessels to the diminished stream of blood that they had now to carry, the greater proportion of which regurgitated or was driven back through the imperfect mitral valve. The lungs in fact in this case were very much in the condition of the brain, when affected from the increased impulse of a hypertrophied left ventricle; the pathological conditions of the two organs were reversed, the impulse of the hypertrophied ventricle being directed backwards towards the lungs, instead of in the direct course of the circulation and towards the heart.

[Dr. Law agrees with Dr. Corrigan in the tonic mode of treating these cases. He says;]

To weaken the system generally, would be to weaken this propelling power of the ventricle, and so disable it from sending on even the smaller quantity of blood, which the unimpaired ventricles could discharge through the diminished aortic orifice. We, in fact, see in the lesion the system deprived of its due supply of blood in two ways—both by the diminished quantity of blood that passes from the ventricle into the artery, and by the passing back again into the ventricle of much of that diminished quantity. We see the pallid ensangueous face, with the frequent symptom of vertigo and giddinets added to all the physical signs of hæmorrhage, all pointing to the same

treatment that the system, when it has been weakened by hæmorrhage, requires.

As we fully admit that serious cerebral mischief will result, and has been proved in many instances to have resulted from an hypertrophied left ventricle impelling the blood with undue force to the brain, a first point in all these cerebral affections, whether of apoplexy or paralysis, ought to be, to determine the actual state of the heart, if it be in a normal healthy condition; and if not, in what its deviation from such a state consists. If it be in a hypertrophied condition, we have physical signs to declare it to us. If this hypertrophy depend upon an obstruction to the course of the blood interposed between the heart and the origin of the vessels which convey the blood to the brain, whether this obstruction reside in the mitral valve or in the sigmoid valves of the aorta, the characteristic signs of these respective lesions will be present, and will serve to guide us. The pulse, especially, will yield us most valuable information. In cases of aortic valve disease, it will have the peculiar vibrating, jarring character which we have already noticed, and will also be visible in the longer arteries; while in mitral valve disease it will be small, and even sometimes be altogether absent, and never in proportion to the strength of the heart's action: whereas, if the obstruction and consequent cause of the hypertrophy be more remote than the origin of the vessels leading to the head, the same impulse, which forcibly drives the blood to the brain, will be communicated to the vessels leading to the wrists, and constituting the pulse. Here the force of the pulse is a measure of the impulse to the brain. In no case of apoplexy or paralysis should a careful examination of the heart's action be omitted. When we find a full, strong pulse, with an equally strong action of the heart, attended with marked impulse or shock, we may calculate upon that modification of this complication of cerebral and heart's disease which has been so long noticed. And to the treatment in this case, we have only to repeat what we have remarked in a former number of this Journal, that while such an affection as apoplexy, and under such circumstances, demands the most untemporizing practice, yet the extent to which depletion should be carried has its limits; for we have not unfrequently met with cases in which a large abstraction of blood has been followed by a collapse or failure of innervation, which required to be immediately met by stimulants.

We have little to add to what we have already stated of disease of the brain, produced by disease of the aortic valves. Quite adopting Dr. Corrigan's views of the treatment and management of the cardiac lesion, from our practical experience of it, and from our theoretical views of its nature, and its close analogy of physical signs and constitutional symptoms with hæmorrhage, we have employed in it a tonic mode of treatment, especially so when the cerebral was added to the cardiac lesion. Observing, as we before remarked, a close relation of signs and symptoms not only between this heart affection, and the physical signs and symptoms of hæmorrhage, but also between it and those diseases whose essence seems to consist in an imperfect state of the blood, and in whose treatment we find chalybeates especially beneficial, we selected our tonics from this class of our remedies, and we conceive with some advantage. When the cerebral affection coexisted, we united the treatments suited to complication. We found the cerebral affection to require an occasional carefully modified depletion, which generally consisted in a few leeches applied behind the ears. We also employed blisters to the nape of the neck; foot-baths, with mustard. Although the patient's flushed face generally suggested to us the necessity of these occasional means, yet we generally depended more on the state of the speech, which seemed to us to yield more certain indications. Our constitutional treatment, contemplating both organs, consisted in tonics and stimulants, united to other means, which the individual organs interested in the complication

seemed to require. The indications were to impart habitual strength to the heart, to enable it to propel the blood, as well as to sustain its regurgitation, and also to stimulate it. We had also to provide for the cerebral affection. We before remarked that we selected our tonics from among chalybeates, with which, as in the case of Dooley, we associated, but very sparingly, digitalis. The stimulants we employed were camphor ammonia, infusum arnicæ, our hospital formula of cardiac mixture, composed of camphor mixture, carbonate of ammonia, and Hoffman's anodyne, &c.,&c. We combined James' powder (as recommended by Dr. Cheyne in cerebral affections,) with carbonate of ammonia. But the combination which seemed to us especially useful in these cases was that of James' powder, and extract of nux vomica; the former ingredient being determining to the surface, producing an equalization of the circulation, while the latter stimulated the heart, as a muscular organ.

The indications, where the cerebral lesion depends on an affection of the mitral valve, are nearly the same as when it depends on the aortic valves, except that when the mitral valve is affected, physical motions and moral emotions must be equally avoided, as producing that tumultuous action of the organ, and causing those congestions upon which depend the exacerbations to which this affection is so subject.

There are two conditions of the auriculo-ventricular opening in these cases—one consisting in its permanent contraction, the other in its permanent potency. In the one but a small quantity of blood passes from the auricle into the ventricle, and of that small quantity a good deal passes back into the auricle again; in the other there is a free passage to the blood from the auricle into the ventricle, and nearly an equally free one from the ventricle back into the auricle. The effect is nearly the same in both cases. The system is equally deprived of its due quantity of blood, while there are the same congestions in the heart itself and in the lungs. While the habitual treatment consists in the exact opposite of that which experience has proved salutary in aortic valve disease, in physical and moral quietude, we shall have to meet the tendency to syncope and failure of nervous energy by the same stimulants as in the other modification of the disease.

[In a fatal case which is mentioned by Dr. Law as bearing on this point, and in which venesection from the external jugular was performed, Mr. Carmichael differs from him in his views both of the pathology and the treatment, considering that the brain was in a state of congestion from the inability of the right ventricle to send the blood through the lungs, which were also in a state of congestion from the disease of the left side of the heart. He consequently recommended unloading the cerebral vessels. Dr. Law takes a different view, and maintains that the death of the patient depended not on the congestion, as the symptoms were not indicative of congestion, but upon the failure of the power of the left ventricle to propel the blood to the brain, and the consequent failure or suspension of innervation. The conclusions drawn by Dr. Law are:]

1st The pathology of the brain is in many instances intimately connected with and dependent upon the pathology of the heart.

2d. To limit the pathological relation existing between these two important organs to apoplexy the result of hypertrophy of the left ventricle of the heart is to narrow it much within its true limits.

3d. Ramolissement of the brain occurs in connexion with diseases of the heart, whose effect is either directly or indirectly to diminish the flow of blood to the head.

4th. This cerebral lesion may be connected with either disease of the aortic or mitral valve.

5th. Hypertrophy of the left ventricle of the heart, in order to produce

apoplexy, must depend upon some impediment to the circulation, placed at a greater distance from the heart than the origin of the vessels which convey the blood to the brain.

6th. When ramolissement of the brain occurs, in connexion with an imperfect or patulous condition of the aortic valves, the close analogy that we trace between the physical signs and constitutional symptoms of this lesion and hæmorrhage, as well as the results of treatment, render it very improbable that the disease of the brain is the result of too much blood driven to it, and with undue force.

7th. When ramolissement of the brain occurs in connexion with disease of the mitral valve, the state of the pulse, which, as a diagnostic mark of this lesion, is habitually small, precludes the idea that the cerebral lesion is produced under the usual conditions of inflammation.

8th. While ramolissement of the brain occurs as a result of inflammation, hyperemia, &c., it occurs also under diametrically opposite circumstances.

9th. To confound such opposite modifications of disease, and to apply to them the same treatment, must necessarily lead to the most mischievous practical results.

10th. The circumstances under which we have seen ramolissement of the brain take place, seem to identify it with gangrene or death of a part consequent upon a diminution of its due supply of blood.

Dublin Journal of Medical Science, May, 1840, *p.* 209.

28.—TREATMENT OF NERVOUS HEADACHE FROM EXHAUSTION, WITH ACONITE.

By Thomas H. Burgess, M. D.

Read before the Westminister Medical Society.

After some preliminary observations on the causes of the different varieties of cephalalgia, Dr. Burgess stated that there were two conditions of body which appeared to him to be intimately associated with that form of nervous headache under consideration. The one was characterised by general anæmia : the other by the debility consequent upon nervous exhaustion.

After describing the nature of the pain, and the procession of symptoms commonly observed in these cases, Dr. Burgess went on to say that debility consequent upon nervous exhaustion, the second condition of body mentioned as associated with nervous headache, is by far the most fruitful source of the complaint. The moral exciting causes of this state are numerous. Anxiety, affliction, dissipation, grief, despondency, mental fatigue, disappointment, sudden reverse, despair, &c., in short all the passions which tend to depress the vital powers, induce a state of nervous exhaustion. Individuals of more advanced years than the former class (observes the author) of the nervous temperament, and of a high state of sensibility, are those who suffer most frequently from this variety. They describe the pain in severe cases, as racking and exhausting, with occasional acute twitches, and excruciating exacerbations, which are generally induced by sound, or by increase of light. There is also vertigo or giddiness, the sight is dim and confused, and black spots are seen rolling before the eyes; they are wholly incapable of mental or bodily exertion; they are sad, morose, and irritable in the extreme, and seek in repose and in solitude for an alleviation of their sufferings. The countenance of the patient is expressive of the most supreme misery. It indicates melancholy and despondency, and sometimes even assumes a suicidal aspect, and this outward and visible picture is but too often a faithful indication of the state of the feelings and emotions of the mind.

Treatment.—The author begged leave to introduce to the notice of the society a drug, the extract of aconite, which he found for several years past of the most incalculable service in the treatment of cephalalgia. It was not his object to extol this remedy as a specific in the complaint; he merely wished to draw the attention of members to the subject; and those who wished, could, with little trouble, put his statements to the test and judge for themselves of the real value of the medicine, in cases similar to those which he had the honour of relating to the society. Dr. Burgess stated that he found the beneficial effects of the aconite materially promoted by the prior administration of the aloes and myrrh pill, in a small dose, so as to open the bowels gently, and encourage their peristaltic action; at the same time he took occasion to observe that he agreed with Dr. Copland that the digestive organs were considered much too generally as the source of the disorder. He also strongly recommended, in cases of young females, kalisthenic exercises, commencing with the gentlest, as urged by Mercurialis, and attention to the quality as well as to the quantity of the food.

The author stated that he usually commenced with half grain doses of the fresh extract, repeated every two or three hours. The preparation, by being kept for any length of time, loses in a great measure, its remedial powers, and becomes black; hence, the dark colour of the extract commonly found in the shops. After noticing the different effects produced by this drug on the system, and the relative advantages of the alcoholic and watery extracts, the author concludes by relating three cases of nervous head-ache, successfully treated with aconite.

Medical Gazette, Feb. 7, 1840, *p.* 765.

29.—TREATMENT OF INCONTINENCE OF URINE IN CHILDREN

The late Baron Dupuytren, and also MM. Baudelocque and Guersent have recommended the use of cold shower-bathing as one of the most effectual remedies against this most annoying and frequently most obstinate complaint.

M. Lallemand, of Montpelier, has great confidence in aromatic bitters, to which a small portion of brandy has been added, followed by active friction of the loins.

Underwood recommended the use of sea-bathing, of dry cupping, of blisters on the sacrum, and of electricity.

As internal medicines the Spanish fly and the nux vomica have been unquestionably the most efficacious. The preparation of the latter, which has been most successfully used, is the extract in doses of from half a grain to four grains in the course of the day. The following two cases may be read with interest.

Case 1. A girl, twelve years of age, had been affected from her infancy with incontinence of urine, her general health being unaffected all the time. It would seem that no remedial means had ever been tried.

Dr. Ramauge, who accidentally saw the girl at a house where he was visiting, recommended her to take one of the following pills, along with a wineglassful of infusion of quassia, three times a day:—

℞. Extracti nucis vomicæ, gr. viii.; Oxydi ferri nigri, ʒi.; Pulv. Quassiæ ʒi. Syrupi absinthii, q. s. In pilulas xlviij. divide.

A tonic nourishing diet was ordered, and also a glassful of wine two or three times a day. By persevering in this course for a month, the patient was quite relieved from her distressing malady.

The treatment was, however, continued for another month: and at the date of the report there had been no return of the complaint for upwards of a year

Case 2. A boy, ten years of age, had long been affected with nocturnal incontinence of urine. During the day he had very frequent calls to urine, the bladder being able to retain only a very small quantity at a time. He was ordered an infusion of quassiæ and half a grain of extract of nux vomica in four pills during the course of the day. After three weeks employment of this regimen, the boy could very sensibly retain his urine a great deal better, the calls being much less frequent. A blister was applied upon the sacrum, and a cold aromatic bath was to be employed twice a week. In the course of a fortnight, the nocturnal incontinence had quite ceased, and the patient continued well for six months.

Medico-Chirurgical Review, April, 1840, *p.* 542.

30.—SOLUTION OF URINARY CALCULI.

Dr. Charles Petit has lately made numerous experiments on the solvent powers of the waters of Vichy over urinary calculi. The result of these researches is, that calculi of uric acid, and of the ammoniaco-magnesian phosphate, when placed in this mineral water, lose, the first 53 per cent. and the last 60 per cent. of their weight. The loss is in the inverse ratio of their hardness and their cohesion. A very important result, however, is that the calculi of the ammoniaco-magnesian phosphate suffer from this mineral water a true disintegration of particles, and become more friable. M. Berard has repeated these experiments, and arrived at the same conclusions. Numerous experiments were also performed on patients afflicted with various calculous complaints the result of which was highly satisfactory. Those afflicted simply with gravelly complaints were, by the use of the mineral water of Vichy, relieved of all their uneasy feelings, and the formation of calculi was prevented. In those, again, who presented all the usual symptoms of urinary calculi, but the presence of which were not ascertained by sounding, the waters of Vichy caused the expulsion of gravelly detritus, speedily followed by the disappearance of the symptoms of stone. In those in whom a urinary calculus of considerable dimensions was ascertained to exist by sounding with a catheter, the use of the mineral water appeared to cause a diminution of its volume; a fact, in one case, ascertained by examination after death. It may be stated that the waters of Vichy consist of a pretty strong solution of carbonate of soda in a water highly charged with carbonic acid.

Archives Gen. de Med. and Edinburgh Med. and Surg. Journal, April, 1840, *p.* 527.

31.—ON THE USE OF NITRATE OF SILVER IN SOME AFFECTIONS OF THE MUCOUS MEMBRANE.

By Alfred Hudson, M.D., Physician to the Navan Fever Hospital.

[Undoubtedly some of the most troublesome cases with which the medical man has to contend, are old stomach complaints, and therefore any remedy which is likely to be of advantage to us in these cases, will be thankfully received by the profession. Such a remedy in many of these obstinate cases, the nitrate of silver will be found to be; and especially when it is given with sound pathological discrimination. We can safely say, that, according to our own experience, it will not often disappoint the practitioner.]

Dr. Osborne assigns it an useful adjuvant action, as an astringent in gastralgia, with sour vomiting. Mr. Langston Parker classes it with morphia and bismuth as a *sedative* in ulceration of the stomach. Dr. Bigger gives

us the testimony of Dr. Steinitz, to its efficacy in nervous debility of the stomach; and of Dr. Schneider, in dyspeptic palpitation; and a case of its successful exhibition, in this latter affection, is given by Dr. Copland, in his article Indigestion; and recently M. Boudin has published his observations on its effects in gastro-enterite, when given by the mouth and by enema.

[Dr. Hudson relates the two following cases as good examples of the efficacy of this remedy, and of the kind of case in which it will prove valuable.]

Michael Monaghan, aged 15, admitted February 3, 1839; has suffered for six months acute pain, with tenderness on pressure in the epigastric region; great distension of the stomach after eating; thirst, costiveness, and vomiting of sour fluid. Pain usually commences about an hour after dinner, and continues through most of the night, preventing sleep; it is generally accompanied by vomiting of sour fluid, without food. He has been under medical treatment, but as he says, without benefit.

His sunken and anxious face presents a picture of extreme suffering.

℞. Nitrat. Argenti gr. ½.; Opii. gr. ½; Pulv. Rhei; Ext. Humuli, aa. gr. i.; Ft. Pil. ter die sumenda.
Bread and milk for diet.

His farther history is, that during his stay in the hospital he had but one return of the vomiting. The pain and tenderness subsided in the course of a week. The pills were discontinued on the tenth day, and on the twenty-eighth he was discharged free from complaint.

Mary Dunne, aged 45, admitted October 18: has had frequent attacks of pain in the stomach and vomiting, for the last fifteen years. She formerly enjoyed remissions of the complaint, but for ten months past she has had three or four attacks every day. Pain usually comes on in about an hour after taking food. She then throws up a large portion of the food, mixed with sour fluid; occasionally she vomits a quantity of fluid resembling the washings of flesh; the bowels are costive.

She was ordered a milk diet and the pills, as in the last case.

As might be expected, it was some time before any decided benefit was experienced. She took the pills for a week without the interruption of any of her daily attacks. She then seemed to improve for some days, but afterwards had a return of the vomiting of sanious fluid, and at the end of a week another.

Nov. 11th. Her attacks had become much less frequent, and her appetite improved. I ordered her a mutton chop daily.

From this time there was a steady and constant improvement, and she left the hospital free from complaint, and much improved in strength and flesh, on the second of December.

[Dr. Hudson then relates some interesting cases of uterine leucorrhœa in which it was of great use.]

Some delicate females, to whom I gave this medicine for nervous debility (as it might be termed) of the stomach, and in whom the primary complaint was uterine leucorrhœa, observed to me, that while the painful feelings in the stomach were relieved, a corresponding amendment took place in the older affection.

Acting upon this *hint*, I made some trials, selecting as well as I was able cases of *uterine* leucorrhœa, so ably distinguished and described by Dr. Churchill.

Mrs. R———, aged 36, the mother of four children, was confined more than a month ago, and since she commenced moving about has been tormented by a viscid, transparent, colourless discharge, which goes off at night

and returns during the day, in great quantity. She has dull pains in the loins, and gnawing at the pit of the stomach. She has had several abortions, and suffered much from the same complaint after each of them.

April 5th. She commenced taking the nitrate of silver in doses of a third of a grain, with powdered ginger and extract of hop, three times a day.

On the 15th of April, she had taken ten grains of the medicine, and was quite well. She said she never got well so quickly in her life: she soon after became again pregnant.

August 6th. I was consulted by Mrs. M———, aged 38, who states that she has had leucorrhœa for ten years; that it is much worse after the menstrual periods. She has dragging pain in the loins; general weakness, especially in the back: sinking feelings in the stomach, and a craving for food, without appetite; her bowels are sluggish; tongue pale and flabby.

She had consulted various medical men, and has spent several summers (by their direction) at the sea side, but without any material improvement. I prescribed the same medicine as in the preceding case.

August 20th. States that the discharge, which was very profuse at the time of commencing the pills, ceased entirely within one week, and has not since returned; her general health is much improved. I ascertained a few days ago that she still continues well.

The only other case of this kind I shall select from a number, which I have taken notes of, is one that I consider especially interesting, because the discharge (which was vicarious of suppressed menstruation) could not be attributed to debility, nor the good effects of the nitrate merely to its general action as a tonic.

M. M'Donnell, aged 19, presented herself as an extern patient at the hospital, October 1st. States, that more than two months since, menstruation was suddenly checked by her wetting her feet, and has not since returned, but that at each period she has had pains in the loins, and a transparent, colourless, glutinous discharge, present in the day, and going off during the night. She feels great langour and debility, loss of appetite, weight about the heart and palpitation, hemicrania, and noise in the ear; the complexion is becoming pale; the tongue flabby, and indented by the teeth.

Ordered the pills, as in the preceeding cases.

Oct. 12. States that the leucorrhœal discharge which came on for the third time, about her former visit, was apparently much diminished by the medicine, continuing only three days instead of five, as formerly, and being succeeded by a scanty flow of menses.

Nov. 19th. Has not been able to attend for more than a month, and in consequence has not had medicine. The discharge has, within a few days, returned. Ordered—

Nitrat. Argenti, gr. xii.; Aquæ, ʒiii.; Tinct. Amar., ʒi. M. Sum. cochleare parvum ter die.

Dec. 20th. States that in three days after her last visit the discharge ceased, and after an interval of twenty-four hours, was followed by the menses in natural quantity, and continuing for three days. The general health is very much improved: weight at præcordia and palpitation nearly gone, &c

Omittr. medicamenta.

It might be considered superfluous to allude to the employment of this medicine in diarrhœa and disentery, as it is a frequent practice in the Dublin Hospitals. I first saw it administered by Dr. Osborne in Sir P. Dunn's Hospital, in 1831, as an enema in dysentery. I was much struck with its effects, and have since repeatedly followed the practice. One of my friends in this country (Dr. Toler), who was a pupil of Dr. Osborne's, informs me that he has frequently employed this enema in cases of cholera with the best effects;

and I have myself been a witness of his success in more than one case of the kind.

[Dr. Hudson concludes his interesting paper by affirming that this remedy possesses :]

1st. A topical action upon the inflamed congested and ulcerated portions of the alimentary canal, similar to that which it exercises upon similar affections on the surface of the body.

2nd. A power of acting as a stimulant upon the capillary circulation of different parts of the body, as of the brain and uterus.

3rd. A tonic power of the very first order.

Dublin Journal of Medical Science, May, 1840, *p.* 234—243.

32.—ACETATE OF LEAD IN BRONCHITIS.

By W. Henderson, M.D., Fellow of the Royal College of Physicians and Lecturer on the practice of Medicine, Edinburgh.

Several years ago, having had repeatedly occasion to regret the inefficacy of the medicines commonly used in bronchitis, when the object in view was the restraining of a too abundant secretion, by which the bronchial tubes were loaded, and the respiration greatly embarrassed, I was glad to avail myself of a notice contained in the Medical Gazette, of 1833, and extracted from Rust's Magazine, in which the virtues of the acetate of lead were represented as specially adapted to the circumstances in question. The cases in which I have had the greatest reason to feel the want of a remedy which could restrain the secretion from the bronchial membrane, were the bronchitic disorders of children, occurring in connexion with measles and with the hooping cough; and it was in cases of this kind that I subsequently had the satisfaction of first witnessing the beneficial operation of the acetate of lead in inflammation of the bronchial mucous membrane.

After a careful investigation of the powers of this remedy, continued for several years, and based on an ample compass, both of personal observation, and the reported experience of several practitioners to whom I recommended the use of it, I feel warranted in stating my conviction that the acetate of lead is a remedy by far the most worthy of reliance in bronchitis attended with profuse secretion. The useful agency of this preparation is not confined to the bronchitis of measles and hooping cough, but is equally observable in the simple bronchitis, and in that which so often occurs as a complication of continued fever. In whatever class of cases I have prescribed it, its administration has been limited to that period of the bronchitis in which the evidences of abundant secretion were apparent; and those evidences have formed the only guides which I have found it requisite to follow in the first exhibition of the remedy, and in regulating the bulk and frequency of the doses. The stage or duration of the disease does not require to be regarded in prescribing the acetate; and though it exerts a signal and most salutary influence on the secretion of chronic mucous catarrhs, it has always appeared to me that its chief value consists in the rapidity of its operation in such acute cases as are characterized by copious secretion, whether of the muco purulent appearance or not, whereby the respiration is impeded and suffocation is threatened.

In acute bronchitis, diverse effects have been observed to succeed the use of the lead. In some instances a very speedy and entire removal of the rattles has ensued, without the pulse having been lessened in frequency, or the respiratory acts materially altered from their previous condition. In such I have been accustomed to omit the lead, and to recur to the antimony, ipe-

cacuan, and calomel, or to whatever remedy had been previously used. In a second class of cases, the rattles have merely undergone a considerable diminution, while the other symptoms have continued nearly altogether as before. In those I have found it of great advantage to alternate, with the exhibition of the acetate of lead, either the antimony, or calomel and ipecacuan. In a third class, no material change of any kind has followed the use of the lead for several days. The cases of this class, for the most part consisted of hooping cough, with intense general bronchitis: and in the treatment of them, the acetate has been given in much larger quantity, and continued longer than in the others. I have repeatedly ascertained, in cases of this kind, that though the number of rattles, and the apparent amount of the secretion, seemed but little reduced from the state which they had presented on the lead being first administered, a marked change for the worse has followed the omission of it. In this class of cases, the doses of lead have been usually alternated with those of some common remedy; yet the latter have been frequently omitted, unless some indication of pneumonia existed, without apparent disadvantage. In a fourth class, composed mostly of cases in which the secretion appeared, from its extreme abundance, to be the principal cause of the most harrassing symptoms—to wit, the hurried acts of respiration, dyspnœa, and consequent restlessness, &c.—the decrease in the number of the rattles, more especially the larger mucous rattles, which has commonly soon followed the administration of the lead, has been very generally accompanied by a commensurate decrease in the other important symptoms. In not a few instances of feeble children, labouring under acute general bronchitis with copious secretion, have the effects of the acetate been observed, by myself and others, so promptly and decidedly manifested as to excite no little surprise, and to alter the prognosis speedily, from a very gloomy to a very cheerful aspect.

The dose in which this medicine may be given must vary with the exigencies of the case and the age of the patient; though the latter particular is of less importance. Indeed, I have hitherto found occasion to give it in much larger quantity to children than to adults, owing to the much greater frequency and severity of acute bronchitis in the former. The quantity taken in twenty-four hours by an adult has not exceeded twelve grains, in doses of from one to three grains. The cases of acute bronchitis in the adult in which I have used the lead, have been mostly complications of continued fever. Along with the lead there was usually given a few grains of the compound powder of ipecacuan; sometimes with the addition of the powdered squill. The common doses to children have been, according to the severity of the case, a quarter, half, or whole grain, from eight to ten times a day. In one very severe, and at one time almost hopeless, case, so much as four scruples were swallowed within ten days. The child was six years old, and the disease intense general bronchitis, supervening on hooping cough. No such bad effects succeeded as are too commonly dreaded from the medicinal use of the acétate of lead, though the gums corresponding to the lower incisors exhibited the blue tint pointed out by Dr. Burton, on the fifteenth day from the commencement of the use of the lead, and it is probable that it existed previously to that date, though unobserved. Nor have I hitherto witnessed in any case the dreaded effects of the lead, not even to the extent of causing constipation.

In the chronic mucous and muco-purulent bronchitis, there is no remedy, I firmly believe (and I have tried a great many), that possesses nearly the controlling power over the quantity of the secretion, which is displayed by the acetate of lead. I usually give it in a pill containing one or two grains, along with some extract of hyoscyamus, and a grain of squill, three or four times a day.

I have thought it of consequence to let the experience which I have had

of the properties of this remedy in bronchitis, be known; because it appears that they have nearly or entirely escaped the notice of the generality of practitioners. The only suggestions with which I am acquainted, of the utility of the acetate of lead in bronchial inflammations, besides that to which I have referred, are by Sauvages, in his Nosologia Methodica; by Dr. Reece, in the fifteenth volume of the Medical and Chirurgical Review (both of whom recommended it merely to relieve irritation in hooping cough): and by Dr. Stokes, in his first volume on Diseases of the Chest, who conjectures that it might be of advantage in certain forms of chronic bronchitis.

Medical Gazette, May 8, 1840, *p.* 263.

[If the acetate of lead is capable of thus checking the great secretion of mucous in bronchitis, of course we need not have recourse to expectorants to get rid of it; but we doubt whether the powers of this medicine are quite equal to what Dr. Henderson here relates. At any rate, we feel convinced that in many cases, expectoration is highly conducive to the recovery of the patients, and it would be highly injudicious to check it. "Inflammation of a mucous membrane," says that eminent physician, Dr. Williams, "involves a certain structural change, probably interstitial effusion, that can be relieved *only* by a free secretion from the inflamed membrane—expectoration is a necessary process." And for this reason we would strongly recommend to the profession the lobelia inflata, which, from many years extensive use, we have found to surpass all other medicines as an expectorant. In our opinion it is far superior to ipecacuan, squill, tartarized antimony, and all other expectorants now in common use. The way we prepare the tincture, is by macerating for 14 days, three ounces of the lobelia inflata in three pints of proof spirit. We give from 15 minims to half a drachm of this tincture to an adult every few hours, and in the latter stages of the attack, when the system is sinking, and the peculiar blue appearance of the skin is increasing, we combine small, and gradually increased doses of the carbonate of ammonia, which enables the patient more effectually to clear his bronchial surfaces. In this effect of ammonia, we agree with Dr. Williams, who says that he "is disposed to think that it is more than an ordinary stimulant, and acts in an especial manner upon the bronchial membrane."

The dose of this tincture of lobelia to an infant is about 10 drops gradually increased till vomiting is produced; we have frequently been astonished at the ease with which the mucus is expectorated after this medicine has been taken. It seems to have the soothing effects of tobacco, as well as its expectorant virtues, after the peculiar irritation which it invariably produces on the fauces has subsided. We have found it more especially useful in infants and young children who are so liable to bronchial affections. It seems to act like a charm when the early acute symptoms have in some measure subsided, and when the membrane is so loaded with mucus, or otherwise thickened, that decarbonization of the blood is no longer properly performed; the blue, livid colour of the surface will often rapidly disappear, and a more healthy hue take its place. We have not perceived the same powerful effects produced so regularly and invariably by ordinary emetics, and this we have accounted for, by supposing that it must be both an expectorant and a sorbefacient, combining as it were, the effects of opium and ipecacuan.]

33.—ON DIABETES MELLITUS.

By Dr MAITLAND, St. George's Hospital.

The efforts of physicians in treating cases of diabetes mellitus appear to be still as much directed to the kidneys, as they were five years ago; yet, since that time, sufficient facts have been accumulated to render it more than probable that these organs are nearly unconcerned in producing the mischief usually attributed to them.

By a reference to M'Gregor's "Essays on Diabetes," and my "Experimental Essay on the Physiology of the Blood," the following facts may be collected, which, I believe, have not been disputed by subsequent inquirers.

The stomach, in diabetes, has the property of forming sugar, from animal as well as from vegetable food.

Sugar is contained in the blood, urine, saliva and stools of diabetic patients.

Such patients pass more urea than healthy ones.

No urea has been found in their blood, though albumen has been found in their urine.—(Bouillaud, Clinique Med. III. 289.)

In the healthy state, the blood contains (besides numerous other constituents) water, albumen, and urea; the kidney is charged with the office of removing *part* of the water, *all* the urea, and *none* of the albumen. A most arduous commission, perhaps requiring a greater supply of vital energy for its performance than is bestowed on any other secreting organ: for the kidneys furnish the largest of the secretions; it preserves the whole of the fluid passed through its ducts from any admixture of albumen, and it drains off the urea from the blood with such accuracy that it has not yet been detected in that fluid in health. We must not forget, in addition, that urea is found (by chemical tests) in *no part* of the healthy system *but* in the urine; and that albumen exists in *every* part of it, solid or fluid, *excepting* the urine; which fluid is strictly excrementitious, and therefore not required to contain an element so universally applicable to nutrition as albumen appears to be. —(Experimental Essay, p. 84.)

But when the glanular degeneration is established, the kidney, like a sentinel negligent or physically incompetent, suffers to pass some of the albumen that should have been rejected, and leaves in the blood some of that urea that should have been carefully extracted; but no new matter is elaborated from the blood, and no function performed analogous to what has been attributed to the diabetic kidney. Then we find, during the prevalence of renal dropsy,

In the Blood.	*In the Urine.*
Defect of albumen.	Excess of albumen.
Excess of urea.	Defect of urea.
Excess of water.	Defect of water.

But in diabetes mellitus:

In the Blood.	*In the Urine.*
Excess of sugar.	Excess of sugar.
Excess of water.	Excess of water.
Urea unknown.	Excess of urea.

I think these facts point distinctly to the conclusion that in the case of renal dropsy the kidney deranges the constitution of the blood by imperfect performance of its function; while in diabetes, the secretion is deranged by the organ being compelled to remove from the blood elements exceeding in quantity and number those which fall under its charge in health. No wonder that Andral finds hypertrophy in the diabetic kidney, any more than that the same alteration is found in the obstructed heart.

May not diabetes mellitus be considered as a complication of two distinct lesions in the system—one a saccharine diathesis, analogous to the excess of nitrogen in the uric acid diathesis, produced by a tendency of the aliments to generate into sugar, after the manner of starch and hordein: and the other an irritation in the stomach and kidneys, leading to excess of fluid swallowed and excreted?

Three cases of diabetes insipidus examined by Macgregor and myself, gave 310, 336, and 400 gr. of urea per diem, respectively, the usual amount of healthy urea being 360 gr. daily. These cases showed a total absence of sugar; therefore they establish the fact that there may be abundant flow of urine (in one case, 26lbs. daily), simply diluted.

May not the sugar be a source of irritation—first to the stomach, causing thirst, and secondly to the kidneys, causing diuresis? In support of the last opinion may be mentioned the facts that sugar is an irritant applied externally, that it causes thirst when taken in excess, and that in the only case of diabetic blood which I have analyzed, the water was in excess, in the proportion of 815 to 783.

The degeneration of aliments into sugar cannot be ascribed to a deficiency of the nervous influence presiding over the stomach, but to its morbid direction; for sugar is formed by the diabetic stomach from animal materials, which can be made to yield it under no other circumstances.

Lastly, are the means usually employed to correct the saccharine tendency such as can be reasonably expected to benefit the supposed irritation of the stomach and kidneys?

Medical Gazette, May 15, 1840, *p.* 307.

34.—ON THE NITRO-MURIATIC MIXTURE.

By J. P. METTAUER, M.D., of Virginia.

[Above twenty years ago this remedy was strongly recommended by Dr. Scott, in a paper read before the Medical and Chirurgical Society of London. Dr. James Johnson and Mr. Annesley have also added their testimony to its utility as a therapeutic agent; but it has not of late been much used in England, and especially not in the way recommended by Dr. Mettauer; and we therefore make the following extracts from the paper by that gentleman, given in a late number of the American Journal of the Medical Sciences.

The first case related is the following:]

Mr. ——, ætat. 29, of slender person, and strongly marked lymphatic developments, had been subject for fourteen years to asthmatic attacks from the slightest exposure: indeed, the constant cough and free expectoration, with more emaciation than usually attends upon asthma in ordinary cases, had induced his friends and early medical advisers to regard the case as tubercular phthisis of a slowly wasting character. During the protracted ill health of this young man, anorexia, indigestion, constipation of the most obstinate kind, low spirits, &c., were constant attendants. The constipation was so obstinate and constant as to resist the action of the most powerful and certain of the ordinary cathartic remedies in a very great degree, and its long continuance had so impaired or vitiated the secretions as to impart to some of them a peculiar fœtor, especially the exhalations from the pulmonary mucous surface, the urine, and perspiration. The gentleman's mind suffered much, also, and occasionally became so erratic in its operations as to expose him to the sarcasm and merry jeerings, not to say cruel ridicule, of the thoughtless and unfeeling. In regard to his disease he seemed on some occasions irrational and almost a monomaniac.

In this state of the case, after five weeks' trial with internal cathartics, it occurred to us to make the experiment with the nitro-muriatic mixture. We formed the mixture of equal parts of nitric and muriatic acids and water; of this from six to twelve drops properly diluted with sugared water, were administered through a small canula of reed, to prevent its action upon the teeth, three times during the day, varying the doses so as to give the largest at noon and at night. At the same time, from thirty to forty drops, diluted in two or three times as much simple water, were applied with a sponge over the regions of the liver and epigastrium, and to the insides of the arms and thighs, having previously washed away from the skin, with soap and water, its unctuous secretion, to enable the acid mixture more readily to penetrate. In this manner the remedy was continued for three days before any decided impression was formed upon the constitution by it. About the close of the third day some improvement of appetite, and of the buccal secretions was manifested. But on the morning of the fourth, to the surprise and gratification of our patient, the bowels acted freely, and seemed, as he expressed it, "just to have waked up from their long sleep." On this day we visited the gentleman, and found him greatly relieved in body as well as mind. For two or three days the remedy, although partially discontinued, acted rather too freely upon the bowels; after this time, however, they became more tranquil, and gradually acquired a state of solubility, of the most comfortable nature. It was found necessary in consequence of the deficiency of the biliary secretion, as manifested by the appearance of the alvine discharges, to continue the use of the acid mixture, both internally and externally for some days, after it had unlocked the bowels. It was one of the remarkable effects of the remedy in this case, and very soon after the constitution had become only partially impressed by its action, to improve the appetite and to enliven the spirits. The gentleman was now cheerful and full of hope, and able to indulge in the use of almost any kind of food, of which he partook freely, and with a good relish and keen appetite. His recovery from this time was progressive and rapid. No other remedy was ever used by this patient after commencing with the acid mixture, nor was it necessary to use that during convalescence, except when the bowels seemed to become less free, and the appetite to falter or to decay. At the date of this communication, now more than ten years since the case was treated, the gentleman continues to enjoy excellent health, and as buoyant spirits as any person of our acquaintance of a constitution naturally feeble and delicate.

[The next case related is that of puerperal mania, which gradually increased till complete derangement resulted.]

Without attempting a particular detail of the case in this stage, we will observe that we have never witnessed a more aggravated case of mental derangement.

Previous to our visit efforts to purge had been made, but they were rendered ineffectual by the lady's incorrigible unwillingness to use remedies. When we first saw this patient, seven weeks after the birth of her child, we found her as already intimated, perfectly deranged, with the bowels obstinately costive, which state of them had continued for more than ten days; the lochia dried up; the secretion of milk, and the secretions generally, greatly deficient in quantity; perfect isomnia, and very slight general fever. For many days in succession very little food or even drink had been taken by her, either from a want of appetite and thirst, or from the apprehension that if she ate or drank, medicine might be disguised in the food or drink.

In treating this case our first object was to obviate the continued costiveness, and we attempted to effect this head through the agency of active internal cathartic means. We found so great difficulty in the administration of these, from the resistance of the lady, that we only succeeded, after ten days

trial, in introducing into the stomach one efficient cathartic dose; it being now manifestly impossible to introduce cathartics into the stomach, and it was equally impracticable to employ cathartic means by enema. In this state of the case we were compelled to draw upon our inventive resources; and while anxiously reflecting on the difficulties now so well calculated to embarrass and perplex us, the nitro-muriatic mixture presented itself to our mind as more likely to aid than any other means, now available to us, to overcome the constipation of the bowels. The remedy was speedily prepared and extensively applied, by sponging every accessible region of the extended dermoid texture three and four times daily. In this case the mixture already advised for external use was employed for three days before it seemed to make any impression upon the internal organs. During the night of the third day, however, after commencing with the sponging, the bowels gave way, and a most profuse catharsis followed, attended with dark, tar-like evacuations, and exceedingly offensive. These evacuations were soon followed by others more natural in appearance; and now it was that the lady became more tranquil, and reposed in quiet and refreshing sleep the first time for many days and nights in succession. Her mind about this time, likewise, became more rational, especially after she had slept a few hours; and for the first time, for nearly four weeks, she inquired affectionately, and with parental tenderness, after her infant. The application of the acid mixture was in a measure suspended now; and, as the symptoms seemed to abate or to assume a healthy aspect, it was gradually laid aside. It was remarked that a single application of the remedy, after the constitution was impressed by it, was sufficient to act upon the bowels decidedly; and that, by varying the quantity used at each time, corresponding effects were produced upon the bowels. Under this simple treatment the lady soon recovered; and, at the date of this communication, now nearly seven years since the case was treated, with the exception of a slight attack of melancholy, she has enjoyed excellent health, and is the mother of three fine healthy children.

Besides the cases here reported, we have in numerous others of similar character, employed the nitro-muriatic mixture, with effects equally as marked as a curative agent. In dyspepsia, hepaticula, and other forms of chronic derangement of the liver, uterine affections of sub-inflammatory nature, some of the forms of external scrofula, and nearly every variety of pseudo-syphilis, we have used this remedy with the happiest effects. In chronic uterine affections, especially the different forms of imperfect menstruation, connected with disturbance of the digestive function, and distinguished by mental depression, constipation, and anorexia, we have found it exceedingly beneficial. We have also employed the mixture with great advantage in certain forms of hepatic torpor and constipation, following catarrhal fever, with constitutions decidedly bilious.

We believe the acid mixture is especially adapted to the treatment of morbid states of the human body, based in chronic inflammation, or engorgements of the capillary and parenchymatous structures of an indolent nature, either as the primary pathological condition of these structures, or the consequence of inflammation. In this view it is assimilated in its remedial action to mercury, to which agent we believe it bears a very striking resemblance in many of its therapeutic powers, especially those from which a deobstruent operation may be supposed to result.

In diseases of decided inflammatory character, the acid mixture is entirely inapplicable; and, as far as our experience enables us to decide, becomes so by reason of its tendency to irritate the constitution through those qualities which directly exalt the action of the economy unduly, so as to superinduce a state of hypersthenia. We have never found any but injurious effects to follow its action in every form of acute disease in which we have employed

the remedy, and for a number of years have confined its use exclusively to chronic affections with very slight febrile disturbance of the general system.

From the experiments of Dr. Scott, and others, as well as from our individual experiments with the nitro-muriatic mixture and a solution of chlorine in water, we are disposed to refer the action of the compound in every case to the presence of chlorine, and believe, with Dr. Scott, that a solution of this elementary substance in water will answer as well as the nitro-muriatic mixture as a remedial agent.

In every case the pulse should be carefully attended to before this remedy is employed; and by no means should this important index of the state of the general system be disregarded during its continuance, or a condition essentially inflammatory may supervene upon its use, to contra-indicate a further continuance of the mixture. We have never employed the remedy in question with children, and incline to believe that it will not suit their delicate and irritable constitution, especially as an epidemic application.

American Journal of Medical Sciences, Feb., 1840, *p.* 291—299.

SURGERY.

SURGERY.

35.—SPIRITS OF TURPENTINE IN IRITIS.

Mr. Arnott strongly recommends the internal administration of the spirit of turpentine in iritis, after the more active inflammatory symptoms have been reduced by bleeding and tartar emetic. This remedy he has found to succeed in curing the disease when mercury and the strictest antiphlogistic regimen had failed. The spirit of turpentine was administered, as recommended by Mr. Hugh Carmichael, in emulsion in the dose of a drachm three times a day; and the only objection to the employment of the remedy was the difficulty or even impossibility of some stomachs retaining it beyond a certain length of time. This, however, might be obviated by diminishing each dose, but increasing their frequency.

Med. Gazette, and Edinburgh Medical and Surgical Journal, Jan. 1840, *p.* 247.

[We also add the opinion of John Foote, Jun., Esq. as given in the Medico-Chirurgical Review for April.]

Mr. Foote believes that turpentine acts, in these cases, by inducing irritation in the mucous membrane of the intestinal and urinary canals. He quotes and approves of Mr. Carmichael's formula for its administration.

℞. Olei terebinthinæ rectificati, ʒj. vitellum uninus ovi; tere simul, et adde gradatim emulsionis amygdalarum ʒiv., syrupi corticis aurantii ʒij., spiritus lavandulæ compositi ʒiss., olei cinnamoni guttas tres vel quatour. Misce; summat cochlearia larga duo ter de die.

In a few cases it has been necessary to increase the quantity of turpentine to an ounce and a half or two ounces in the above mixture, the other ingredients being proportionally diminished so that a drachm and a half or two drachms of it may be taken each time; but, in general, when administered to the extent directed in this formula, it has very seldom indeed failed, though extensively tried, and in very urgent cases.

Mr. Foote relates five cases, all of which occurred at the Westminster Ophthalmic Hospital. They tell, more or less, in favour of the medicine. Perhaps the case we shall introduce is as strong that way as any.

Case.—William Chalfont, ætat. 18, admitted July 21, 1829, with syphilitic iritis of the eye. He reports himself to have had sores on the penis some time since. He has now a copper coloured eruption (the lichen syphilitica) very plentifully on the back and arms, accompanied with nocturnal pains in his shin bones. He has not had a sore throat, nor has he taken mercury. His eye has been inflamed for three days, and he suffers severe circum-orbital pain, especially at the lower part: vision is also considerably impaired. The iris is much changed in colour, and is immoveable: pupil regular; conjunctiva inflamed; and the vessels of the sclerotic are of a pink colour, and very numerous round the margin of the cornea, forming a beautiful zone, with a white inner circle immediately surrounding the cornea.

Med. Chir. Review, April, 1840,

[This case was treated with the usual dose of a drachm three times a day with success. But we must agree with the editors of the Medico-Chirurgical Review, that calomel and opium are our best remedies, and it is only where this treatment fails, that we are warranted in trying the turpentine.]

36.—SECTION OF THE HAMSTRING TENDONS FOR THE CURE OF CONTRACTED KNEE-JOINT.

By Benj. Phillips, Esq., F.R.S., &c., &c.

A young woman, 29 years of age, had suffered for several years from rheumatism, which affected principally the knee-joints and hands. During this period both legs became more and more flexed on the thighs, and extension became impracticable. A variety of means were used for the purpose of procuring extension but without any amendment.

The success of operations for the cure of club-foot by cutting the tendo Achillis, and also that of M. Lutens of Antwerp, who cured an obstinate flexion of the knee by dividing the hamstrings, induced Mr. Phillips to recommend section of the hamstring tendons in this case.

The patient lay on her face, and the limb was extended as far as possible, so as to produce a marked cord-like tension of the hamstring tendons. A straight blunt pointed knife was introduced with its flat surface to the tendons of the biceps, and between it and the bone. Its cutting edge was then directed upon the tendon, and by a gentle sawing motion cut it through without injuring the integuments. The cut surfaces retracted to the extent of about one inch. A similar course was taken with the semi-tendinosus. No blood was lost; and the edges of the small wound were brought together by means of plaster. On the third day, when extension was about to be made, it was found that the semi-membranosus muscle would not yield. It was accordingly cut through in the same cautious manner, the incisions being repeated till resistance was no longer offered. Its section allowed the extension to be increased by an additional inch.

A modification of Amesbury's apparatus was used for procuring the extension, and the extension screw was given one turn daily. Considerable pain at the patella was complained of after a few days, but by dividing the knee-cap of the instrument into two portions, and placing one above and another below the patella, the pain and discomfort ceased, and allowed the extension to proceed. The cure went on satisfactorily from this date, and when the apparatus was removed, which was done when the extension was complete, it was found that there was scarcely any tendency to contraction, and that the muscles were capable of extending and flexing the leg at will, though at first very slowly.

Med. Gazette, and Edinburgh Medical and Surgical Journal, Jan., 1840, *p.* 249.

37.—HINTS ON THE TREATMENT OF WOUNDS AFTER OPERATIONS.

By M. Phillips, of Liege.

The following brief passages are extracted from a letter which M. Phillips of Liege has recently addressed to M. Baudens, the distinguished chief surgeon of the French army in Africa.

After an amputation in a joint, the flaps should be brought and kept together by a few stitches, in order to promote union by the first intention; but as adhesion rarely, or perhaps never, takes place between the surface of

a cartilage and the contiguous flesh, we should not only remove so much of it (the cartilage) before closing the wound, but also place a small portion of lint upon it, so as to encourage suppuration at this point, while the rest is retained in exact contact. The annals of surgery afford scarcely one instance of complete and perfect union, without suppuration of a wound, after a disarticulating amputation.

The disarticulation of the femur performed by the late M. Delpech, where the wound healed almost immediately, is perhaps the most fortunate case on record. The patient had suffered from disease of the femur for nearly 19 years, and he was falling into a state of marasmus. The crural artery being first tied, the chief flap was formed from the muscles on the inside of the limb; the head of the bone was then easily disarticulated, and the operation quickly finished. The two flaps were kept together by numerous stitches, which traversed the integuments only.

On the sixth day there was a serous oozing from the wound, and on the ninth, a very slight suppuration. On the 28th, the cicatrization was complete; but about the end of the second month, a white substance presented itself; this was the cartilage of the joint. It was immediately removed, and the wound speedily healed.

Such an occurrence as that of the cartilage making its way to the surface with no local or general disturbance, is excessively rare, and should not influence our practice much. We are therefore of opinion, on the whole, that whenever an amputation is performed at a joint, an issue or opening should always be left opposite to the cartilage, while the rest of the wound is retained together by sutures.

Even after ordinary amputation, where a bone has been sawn across, some surgeons have recommended that the same practice be pursued; but, without positively admitting the propriety of so general a rule, it is worthy of remark that, when the two ends of a bone are sawn off in cases of ununited fractures, not only is there a better chance of a union taking place, but this union is always much firmer and more solid, when suppuration has been established at the point of junction, than when immediate adhesion of the wound has occurred. Such was the opinion of M. Delpech; a high authority certainly on all subjects of practical surgery.

Numerous statistical reports of the mortality after amputations of the larger limbs, have been published of late years; but, from the imperfections of their details, such as the mode of dressing after the operation, the use or not of sutures, &c., &c., it would be unsafe to draw any positive inferences. The success of M. Percy, after the battle of Neubourg, deserves, however, to be alluded to, in consequence of certain circumstances. There was such a want of many of the most necessary articles, as lint, ointment, and bandages, in the French camp, that all the patients were dressed indiscriminately with merely cold water. It is probably to this very circumstance that the great success of the surgeons, in the results of their operations, was attributable on that occasion. For some years past, the same practice has been adopted by Mr. Liston at the London University Hospital, and M. Phillips has of late universally followed it with very marked benefit, after almost all his operations. In all severe injuries of, as well as after operations of the eye, M. P. always subjects the part to the action of the cold water for several days. Also after the extirpation of tumours, when the lips of the wound have been brought and kept together by several stitches, compresses wetted frequently with cold water, are laid invariably upon the part. M. Phillips mentions that in such cases he generally unties the ligature at the lower angle of the wound on the day after the operation, for the purpose of giving exit to any bloody or other kind of discharge, and after removing this, he again secures it. On the third or fourth day he removes one ligature, and another on each day successively; continuing the use of the cold application all the time. M. P

trusts to torsion of the arteries to arrest the hæmorrhage, after many such operations. There is very little doubt that this simple expedient, if really sufficient as a hæmostatic means must contribute very materially to the speedy union of wounds, as each ligature on a blood-vessel must necessarily give rise to a point of suppuration and to a minute sinus or fistula extending from the tied vessel to the surface of the wound.

Bulletin Med. Belge, and Medico-Chirurgical Review, Jan., 1840, *p.* 215.

[We here insert a few words on irrigation, from the interesting Lectures on Surgery by Mr. Phillips, surgeon to the Marylebone Infirmary, which are now in course of publication in the Medical Gazette.]

In most cases cold water is a good application, but if energetic local depression of vital action be required, irrigation will be found more effective. This irrigation may be accomplished conveniently by suspending a bottle of cold water in a proper position; placing in it a few threads of lamp cotton, one extremity of which should reach the bottom of the bottle, the other hang out at its mouth; in this way you get a species of syphon, and a constant dropping upon the lint or linen covering the part. The part should, of course, be kept at rest.

Medical Gazette, Jan. 31, 1840, *p.* 689.

38.—ON THE ADVANTAGES OF DELAY (EXPECTATION) IN THE TREATMENT OF COMMINUTED FRACTURES.

By this term we wish to express a prudent and well-considered delay for several days after the receipt of a severe accident, and during which time a skilful management of all the symptoms, constsitutional as well as local, is perseveringly pursued—so that on the one hand a fair chance is given to nature to repair the damage, and on the other hand, that the health of the patient is not unwisely risked too far before any mutilating operation is resorted to.

The judicious employment of local and general bleeding, of refrigerent drinks, of low diet, &c., in robust and phlethoric constitutions, and of opiates and other anodynes, along with these means, in such as are feeble, lymphatic, and nervous, will often serve to prevent, or at least to mitigate, the severe symptoms which follow, as a matter of course, every serious injury or wound. At the same time the free incision (*debridement*) of such parts as may be tense and confined, the extraction of splinters which are always a cause of much pain and irritation, the resection of any protruded bones, the adjustment of opposite surfaces by means of stitches or bandages, the continued affusion or irrigation of cold water on the seat of the injury, the employment of emollient or resolving remedies according to existing indications, the use of the starched bandage (*bandage amidonne*) as soon as the first or inflammatory accidents have passed away, and the administration of internal or external revulsives when any complication supervenes—these means, if judiciously practised, will in very many cases enable the surgeon to conduct his patient through numerous dangers and difficulties, and restore him to health without having undergone any loss or mutilation. The salutary effects of one or two large blood-lettings, in cases of severe injuries of the limbs, are well known to most practical surgeons; many an unpleasant accident might be avoided by the prompt and decided use of the lancet.

In reference to the application of leeches in such cases, it may be useful to state that they should be applied not to the immediate vicinity of the injury, but at some distance from, and above its seat, and if possible near to the point where the smaller veins terminate in the larger trunks.

The irritation caused by leech-bites close to a contused or lacerated wound has often caused serious mischief.

We have already alluded to the advantages of removing any tension in the wounded part by means of one or two free incisions. Some surgeons have of late years questioned the propriety of this practice; but fortunately they have made few converts to their opinion, and the value of the precept is now very generally acknowledged. In many cases we should not wait until the inflammatory tension takes place before we have recourse to this practice, as it is much easier to prevent than to relieve the mischief.

The following are said to be the good effects of a continued irrigation of the injured part with a stream of cold water. It arrests inflammation, checks the swelling of the tissues, soothes pain, lulls sympathetic irritations, and stifles any sanguineous reaction; the tissues, bathed, as it were, in a permanent bath, become pale and colourless: their vessels no longer receive more blood than is necessary for the support of their organic life; suppuration is established slowly and scantily, and the reparative process is not disturbed by any violent excitement either in the part itself or in the system. The water should be of the ordinary temperature; and the limb should be placed in some apparatus which protects the bed from wet, and the parts which are not exposed to the current, should be enveloped in warm flannel. By attending to these precautions, the risk of any pulmonary or abdominal irritation will be prevented, and the irrigation may be safely continued until all chance of inflammatory excitement has passed away.

In some cases, however, as when there is any tendency to pneumonia or enteritis present, or when the injured parts have been so severely bruised as almost to have lost their vitality, the use of cold effusions is inadmissible. Then we should have recourse to opiate cataplasms, which are especially useful when the process of suppuration is commencing.

With respect to the bandages, they cannot be too simple and lightly applied at first. Whenever the risk of inflammatory action is over, and the use of the cold irrigation is therefore unnecessary, there is no remedy so useful in promoting the cicatrization of any wound, and the solidification of the callus between the fractured ends of the bones, as the employment of the starched bandage or roller.* It has the great advantage of giving such equable support to the injured limb that the patient may move it about in bed, or even walk upon crutches without any danger; and thus, much of the suffering, which is almost inevitable upon long confinement, is prevented. Moreover, it is light, easily applied, and when once adherent, is not liable to be displaced. It requires renewal only when, from the subsidence of the swelling of the limb, it has become rather loose around it, or when it is much soiled by the discharges. Openings must be cut in the bandage over the the seat of any wound, so that this may be regularly dressed. We regard the employment of the continued irrigation of the injured part and of the subsequent application of the *starched bandage* as two of the most valuable acquisitions which the art of surgery has obtained in modern times, and as destined to introduce in the treatment of comminuted and complicated fractures, and such like injuries, a most beneficial revolution.

Bulletin Gen. de Therapeutique, and Medico-Chirurgical Review, Jan., 1840, *p.* 217.

* This, the *bandage amidonne*, which has for the last few years been so highly recommended by MM. Seutin, Velpeau, and other continental surgeons, as constituting by far the best immovable case for fractured limbs—is merely a common roller soaked in starch mucilage before it is applied. When it becomes dry, it forms a firm case round the limb, so that the patient may move it about, or walk on crutches without any risk of displacing the bones. An abstract of a paper by M. Velpeau, on the use of this and other kinds of agglutinative bandages, in the treatment of fractured limbs, will be found in the Medico-Chirurgical Review for July, 1838.

39.—TREATMENT OF SCROFULA.

By B. Phillips, Esq, F.R.S., &c., &c.

[Next to iodine, Mr. Phillips considers the muriate of baryta one of the most valuable remedies we possess; and one which has hitherto been but little used in this country.
He says:]

It usually increases the appetite to about as great an extent as we see in children who are taking moderate doses of iodine; it increases all the secretions, and sometimes, like some of the forms of iodine, produces diarrhœa. In twelve cases where it was exhibited in the dose of, at first, one third, and afterwards half a grain, three times a day, no unpleasant symptom was developed. Eight were materially benefitted by its employment. The general health improved sensibly, and the enlargement of the glands was very considerably lessened. In the other four cases no sensible influence was exerted over the disease.

[Iodide of iron is the preparation on which Mr. Phillips places the most reliance: respecting which, he says:]

Iodine, in its various forms, I have used extensively; and I have had very ample opportunities of estimating the relative merits of the different preparations of this substance. I have administered it in the form of tincture mixed with water, and also associated with the iodide of potassium. I have exhibited the iodides of iron, lead, sulphur, and arsenic. I have employed it externally, in the form of ointment, lotion, tincture, and bath, and as a broad or wholesale result, I may state shortly, that at present I rarely use internally any other form than the iodide of iron, and that the dose does not exceed, in any case, three grains, three times daily.

I have a register of 232 cases in which I have exhibited the iodide of iron. The minimum dose has been a grain twice a day, the maximum three grains three times a day. Of these cases, only three times was it necessary to intermit the use of the medicine for a few days: in one of these it excited ptyalism; it was laid aside for a fortnight, again resumed, and again produced ptyalism. Since that period, and within the last twelve months, the same patient, on her return from Margate, has been taking the medicine with the most decided good effects, and without ptyalism. In the other case diarrhœa supervened; the medicine was withheld for ten days, was then resumed, continued for several weeks, and without any derangement of the bowels. About once a week an aperient or purgative is given, which decidedly assists the treatment, but no other suspension of the medicine occurs. Where scrofulous ulcerations occur, whether as a consequence of abscess or from other causes, I am accustomed to employ, with the very best effect, a lotion containing three or four grains of this preparation to the ounce of distilled water.

In the employment of iodine or the iodide externally, one fact cannot escape a superficial observer, and that is, the rapid change which follows the application. For a few days this diminution is very striking, but it is not continued, and after a fortnight or three weeks the tumour appears stationary. Then is the time for resorting to a new form, which must be employed for a similar period, and must then give place to a third. But although the external applications will occasion a marked diminution of such tumours, they hardly ever completely disperse them; and when applied alone, without a concurrent internal administration of some preparation of the medicine, their effects are much less decided. When such tumours are extremely indolent, the ointment may be rubbed upon the part without fear of injury; but if they be the seat of irritation, it is very likely to be increased by friction. In con-

sequence of this circumstance, I usually recommend it to be applied to the part, spread on lint. It is thus kept in contact with the surface for a much longer time, the irritation consequent upon rubbing is avoided, and the good effects of the medicine are more decidedly marked than by any other mode of application.

Now, in my own experience, so far from emaciation of the whole or a part of the body being essential to the therapeutical action of this medicine, when prudently administered, one of the earliest symptoms observed, is a remarkable increase of appetite, and a corresponding increase in the bulk of the body. I have watched its effects with great care, and I have not known a single case in which either the whole, or even a part of the natural structures of the body have undergone any such change.

Mr. Phillips' Lectures on Surgery.—Medical Gazette, Jan. 10, 1840, *p.* 580.

40.—EMPLOYMENT OF THE RECTAL TUBE IN STRANGULATED HERNIA.

[Dr. J. O'Beirne, of Dublin, recommends the introduction of a tube to a considerable distance up the rectum in cases of strangulated hernia, for the purpose of giving vent to the flatus contained in the intestine, as this process may occasionally prevent the necessity of an operation. He states that "no medical man can henceforth be considered justified in proceeding to an operation for strangulated intestinal hernia, without having previously given a full and fair trial to the mode of treatment in question." Mr. W. H. Maunder, of Cullompton, Devonshire, relates an interesting case in a letter to Dr. Beirne, in which the introduction of the tube of the stomach-pump, to the distance of twenty-six inches so relieved, and an operation was prevented. Mr. Maunder says:]

On Thursday, the 12th of December, 1839, I was requested to visit John Howe, aged 46 years, a weaver, and a pauper belonging to this parish. I was soon at his bedside, and found him complaining of constipation of the bowels, which had existed for three days previously; constant vomiting; a sense of dragging at the epigastrium, and great pain on pressure of the abdomen; tongue white and coated; pulse 100, but weak. On prosecutiug my inquiries, I ascertained that he had been the subject of hernia on the left side for three years, but had never worn a truss; and on the Tuesday evening previous, while at work at his loom, weaving bags (rather a laborious occupation), he felt the intestine protrude to a much greater extent, and with more pain than it ever had before. Hitherto, he had always reduced it himself by a little manipulation and the recumbent position. There was a portion of intestine, of the size of an orange in the scrotum, which I could not reduce by repeated and unremitting efforts at the taxis. I bled him to sixty ounces, but with no better success. On the following evening I went to his house with the intention of operating on him, provided the intestine remained unreduced, but suggested to my friend and colleague, Mr. Smith, the propriety of first introducing the tube, as recommended by you. I must frankly and candidly admit I did not consider it would be of any use: however, he concurred with me in opinion, and I proceeded at once to pass the tube of the stomach-pump. There was a little difficulty, which was removed by injecting rapidly a little gruel. The tube was introduced twenty-six inches, and after the expiration of about ten minutes, air escaped in small quantities from its mouth; the scrotal tumour gradually diminished, and the poor fellow was soon released from suffering; the sickness ceased, pain was diminished, and the dragging sensation completely relieved. I gave him shortly afterwards, two drops of croton oil, mixed up with sugar, and divided into three powders

(one every three hours, and followed up by a little saline mixture), whereby the bowels were most powerfully acted upon; he is now quite recovered, having resumed his usual occupation more than a week since.

London Lancet, Feb. 1, 1840, *p.* 693.

41.—PURULENT OPHTHALMIA, EVEN BEFORE BIRTH.

By JOHN WALKER, Esq., Manchester.

[In the course of these excellent Lectures on the Eye, by Dr. Walker, a case of the above-named disease is related, which is very remarkable. Mr. Walker says:]

You will probably agree with me in thinking that this disease may arise from a number of causes, one of which may be some such secretion as that alluded to, and another a peculiar congenital predisposition.

This extraordinary case I will state a little in detail, since, as far as I know, there is no similar one on record, although, probably others must have occasionally occurred. The child, when first brought under my notice, was six months old, and the mother, a very intelligent person, informed me that at the time of birth, its eyes exhibited the same appearances as were now observable. The disease had run through its entire course previously to birth, for, according to her account, there was no puriform discharge, inflammation, or intolerance of light, noticed at any time subsequently. The cornea of one eye had completely sloughed, the eyeball had sunk, and, of course, not the slightest vision existed. More than one half of the cornea of the other eye was opaque; through the remaining transparent portion, a part of the pupil could be discerned, and the iris and cornea appeared almost in contact. The transparency gradually extended, and more of the pupil became accessible to light; hence, though vision was very imperfect when I last saw the child, yet it appeared to be gradually improving.

Now, after duly considering how perfectly the phenomena presented by the eyes of this child agree with those met with as results of purulent ophthalmia attacking infants after birth, I think that no reasonable doubt can be entertained that they were occasioned by purulent ophthalmia which occurred before birth.

This is not the only case that I have met with, affording evidence of active diseases of the eyes having been present during the uterine period of existence. Some few years ago I saw a child, then only two or three days old, the cornea of each of whose eyes was opaque throughout, and unusually large and prominent, so that very little of the sclerotica was discernible. The opacity was of a bluish-white colour; there was scarcely any irritation about either eye: nothing like inflammation. I merely prescribed some palliative remedies, regarding the case as one of malformation, and thinking that this would probably be permanent. This child, however, when about two years of age, was again brought to me on account of some slight inflammatory condition of the eyes, and I was surprised to find that they had assumed a perfectly healthy appearance, the cornea having become quite transparent, and of the normal size.

London Lancet, Feb. 8, 1840, *p.* 713.

42.—NEW AND SUCCESSFUL METHOD OF TREATING PROLAPSUS UTERI.

By Benj. Phillips, Esq. F.R.S., &c.

Mr. Benj. Phillips has in one case of prolapsus uteri, treated by him at the St. Marylebone Infirmary, succeeded in effecting a cure, or, at least, in affording complete relief by destroying a portion of the mucous lining of the vagina by means of the nitric acid. The contraction consequent on the separation of the sloughs reduced the size of the vagina so much as effectually to retain the uterus *in situ*.

Medical Gazette, May 18, 1840, *and Edinburgh Medical and Surgical Journal, Jan.*, 1840, *p.* 252.

43.—REMARKS ON THE NATURE AND TREATMENT OF CLUB-FOOT

By W. Detmold, M.D., of New-York.

[There is a long but very interesting article on this disease, in the New-York Journal of Medicine and Surgery; and we here make rather copious extracts, in order that our English readers may compare the observations with those on the same subject by Dr. Little, and other talented surgeons of our own country. The extracts we have made are scattered through a space of sixty-four pages of the Journal, but will be found to be a tolerably accurate epitome of the opinions of our transatlantic friends.]*

The anatomical examination of a club-foot shows that in every case the muscles are the parts originally affected, and that all the changes which the other parts involved in the deformity may have undegone, are secondary. We wish to be well understood;—we call the muscles the parts originally affected in every case of club-foot (for so they are, even if the deformity should, for instance, be developed in consequence of an ulcer on the foot, or of caries of a tarsal bone;) in such cases, these would be only an accidental cause of the affection of the muscles, but which in itself has nothing to do with the deformity. Besides the affection of the muscles is sufficient to explain satisfactorily all the symptoms of the disease.

The whole muscular system is so arranged, that on one part of the body, or of a limb, we find one set of muscles for one particular motion, and on the opposite side we find another set for the opposite motion; we find on one side of the limb the flexores, and on the other, the extensores; on one side the pronatores, and on the other, the supinatores: the adductores, and abductores; and so on. These separate antagonist sets are with few exceptions, if not of equal strength, at least, of a proportional strength, so as to counteract each other, and by keeping an equilibrium between themselves, preserve free motion of the limb. If this equilibrium is disturbed, free motion ceases, and the limb is drawn to that side on which the muscles are so strongly contracted that their antagonists are thrown out of action. If this occurs in the muscles of the neck, the disease is called torticollis, or wry neck; if in the fore-arm and head, the club-head; if in the leg and foot, the club-foot. Although, as we have just remarked, the antagonist sets are in general of a proportional strength for the sake of preserving the equilibrium, yet, as a general rule, the flexores are stronger than the extensores, the pronatores stronger than the supinatores, and the adductores stronger than

* A most able and interesting review of Dr. Little's work is given in the London Medico-Chirurgical Review, for April, 1840, which will amply compensate those readers who have not already seen it, for the purchase of that number in particular.

the abductores. In a few instances this respective difference is greater, and it is greatest in the muscles of the lower jaw and of the calf. The muscles which close the jaws being, for very obvious reasons, infinitely stronger than those which open the mouth—and the muscles of the calf, which, when the body is raised upon the toes, have to bear the weight of the whole body, must also, of course, be endowed with great power; whereas, their antagonists require comparatively very little. This is no exception to the above-mentioned general rule, that the flexores are, in general, stronger than the extensores, for although the muscles of the calf are commonly called the extensores of the foot, they ought, according to their situation on the back part of the limb, and according to the whole arrangement of the bones, to be called the flexores of the foot, and in fact, some modern physiologists and anatomists, Rudolphi and Von Walther, for example, have already adopted this nomenclature, and called the gastrocnemii and soleus muscles flexores.

This fact, viz., that the strongest set of muscles (in the leg, the muscles of the calf), will contract from a general cause of irregular muscular action, illustrates one cause, and by far the most frequent cause of club-foot. Congenital club-foot is in almost every instance produced in this way.

The club-foot, from spasmodic contraction of the muscles, is more difficult to cure than any other.

The club-foot, after paralysis, is easier cured, but it often requires a long time, and particular attention, before the patient can walk well.

The third class, club-foot, after habitual contraction, without spasm or paralysis, admits of the most favourable prognosis; the patients are easily cured, and almost immediately after the cure, walk perfectly well.

At how early a period of uterine existence this deformity may originate, we have had no opportunity to ascertain by experience, but have every reason to suppose that, as soon as the muscular system is far enough developed to serve as the instrument for motion, that is, as soon as the muscles are able to contract at all, that they may then contract irregularly. Little, and others, have found and dissected fœtuses of three months old with club-feet; and we have seen children born with club-feet, where the contraction of the muscles must have taken place before the bones had attained their osseous consistency, for the bones were plainly bent by the contraction so that they formed a bow, the muscles acting like a bow-string.

Dr. Little has proposed the name of talipes as a generic name for all these distortions of the feet, and we believe it is, and ought to be, generally adopted.

There are four distinctly different species of talipes to be considered, viz:—

I. The muscles of the calf, and the adductors of the foot are contracted, the heel is drawn up, and the foot has made a rotatory motion inwards, analogous to pronation of the hand: the toes turn inwards, and the outer edge of the foot touches the ground, the patient walks more or less upon the outer ankle—*talipes varus*.

II. The muscles of the calf are contracted, together with the abductores of the foot, which has made a rotatory motion outwards, analogous to supination of the hand; the inner margin of the foot touches the ground, the patient walks more or less on the inner ankle—*talipes valgus*.

III. The muscles of the calf are alone contracted, the patient steps on the toes without bringing the heel to the ground—*talipes equinus*.

IV. The muscles in front of the leg are contracted, the patient steps on the heel without being able to bring the forepart of the foot to the ground.

Talipes varus, as we have mentioned before, and as from the explanation of the disease, and the mode in which it originates, might *a priori* be expected, is that species of talipes which is most frequently met with. Of the 167 patients which came under our observation, 93 had, as we have stated,

both feet affected, and 74 only one foot: this gives an aggregate number of 260 feet; of these 230 were vari.

In this form, all those muscles are contracted which are naturally of a superior strength to their antagonists, viz., the muscles of the calf, the muscles on the inner side of the leg, and those of the inner side and sole of the foot. Consequently the heel is drawn up, the foot is turned in, and the inner margin of the foot turned up and bent, so that the great toe is brought nearer the heel. All the bones of the foot are somewhat changed in their position towards each other, without, however, their respective articular surfaces ceasing to be in contact; there is no complete luxation; the ligaments which connect the bones of the foot adapt themselves to their abnormal position, and become contracted and shortened on the inner side of the foot, and stretched on the outside.

The foot touches the ground with its outer and upper part, where from the pressure of walking, a thick callus is formed, whereas the epidermis of the heel remains thin and delicate.

Treatment.—When the pathology of a disease is established, and we believe we have done that satisfactorily in the disease in question, it is easy to find the therapeutical indications, which are in club-foot, to re-establish the disturbed equilibrium of the muscles, to relieve the contraction of one set, and to give the other a chance to regain its power. Our object now is to consider the best means of obtaining this end.

The only remedy to be relied upon, in the cure of club-foot, is extension of the contracted muscles, gradually increased and continued until one set of muscles lose the inclination to spasmodic contraction, and their antagonists regain their activity. In cases where the contraction is so strong, or has existed such a length of time, that a moderate extension is insufficient to overcome it, we have a certain and safe remedy in the knife; we divide either the contracted muscle or its tendon, and as soon as reunion has taken place, or rather as soon as it has begun, we commence extension, which then meets with little resistance. We say, a moderate degree of extension is alone indicated, for if it exceed those limits which are dictated by prudence, and by the consideration that we are treating a living subject, and a contractile muscle that will yield to a certain point—but on this point being exceeded, will react against the extension—and that if this is persisted in, the whole system will sympathize with the part, and convulsions and other serious nervous symptoms will be the consequence.

With a little practice and experience, we are generally able to judge beforehand whether extension alone will be sufficient, or whether the knife had better be resorted to at once, without losing time.

If the contraction yields to the extension made with the hand, if the heel can be drawn down, and the instep bent, in a word, if the foot can, without great force, be reduced to the natural shape, or nearly so, the operation can generally be avoided. The manipulation, however, must be made gradually, and with care, for if sudden, the child will offer a resistance which might be mistaken for spasmodic contraction, whereas, by a gradual extension, the foot might probably yield.

Generally, in children less than a year old, the muscular contraction will yield to the mere extension with proper instruments, although, of course, the age alone decides nothing. We have operated upon children of three months of age, and we have cured without dividing a tendon, congenital club-feet in patients of four years of age.

All this shows that no positive rules can be laid down as to the necessity of operating; much, after all, must be left to the judgment of the surgeon; yet he ought to bear in mind, that steady extension is a powerful remedy, which will supersede the knife in cases which, at first sight, may promise little hope.

We believe that in the great majority of cases where we feel obliged to re-

sort to the knife, the section of the tendo Achillis alone is sufficient. The gastrocnemii are the strongest muscles, and capable of the most powerful contraction; besides, they are the chief cause of the deformity; if their contraction is overcome, the other muscles involved generally yield very readily. In young subjects, it is, to say the least, superfluous to divide more tendons. In older patients, it may occur that other muscles besides the gastrocnemii are not only so strongly contracted, but from the duration of the contraction, actually so shortened that their division may facilitate the cure. The muscles that, under such circumstances, may require the section of their tendons, are, besides the gastrocnemii, the tabialis, anticus, and posticus, the flexor longus, and sometimes the extensor pollicis; and in pes equinus, the peronæi. In deformities of long standing the ligamentum plantare is sometimes so shortened that time may be gained by dividing it also. We have in many cases divided these muscles, and for the sake of experiment, have occasionally, in patients where both feet were equally affected, divided the tendo Achillis alone in one foot, and in the other foot, besides the Achillis, those of other contracted muscles; but the result of our experience is, that the section of the tendo Achillis is the main thing, and that almost all cases are curable by dividing this alone; and even the gain of time, from dividing more of the contracted muscles is not very great, if in fact, it be any at all. Yet, if in bad deformities of long standing, some of the above-mentioned muscles were very strongly contracted, and their tendons can be felt very tense and prominent under the skin, it may be advisable to divide them before commencing extension; although there would be nothing lost by dividing at first the tendo Achillis alone, and commencing extension, and if afterwards any other muscles were found to offer too great a resistance, their tendons might be divided in the course of the treatment.

The operation itself is very simple. After the patient is placed in the most suitable and convenient position, an assistant, or the surgeon himself, with his left hand extends the heel to make the tendon more tense, so that it shall not yield before the edge of the knife. The principles to be observed in performing the operation, are to cut, not by drawing the knife, but by *pressing it against the fibres*—in this way there is no danger of wounding other tissues —to divide the tendons where it is most prominent under the skin, to separate it completely, not leaving any of its fibres undivided which might afterwards be torn by the extension; to pass the knife as closely round the tendon as possible, so as to make the internal wound not larger than is necessary and to make the wound in the integuments as small as possible.

A good deal has been said about the shape of the knife, whether it should be straight, concave, or convex. We formerly used a concave knife, but now use in preference, a straight one; the shape of the knife is immaterial, provided the blade be narrow. The one we are now in the habit of using, is in its broadest portion not quite one-twelfth of an inch. In dividing round tendons, and tendons or muscles which are so placed that it is easy to pass the knife underneath without fear of wounding other parts, it is advisable to use a straight, or slightly concave knife, to introduce it under the tendon, with the edge upward, and cut from within outward; whereas, in cutting flat muscles, aponeuroses or ligaments, we prefer a convex knife, which we introduce under the skin, and divide the tendon by pressing the knife upon the contracted and tense fibres, cutting from without, inward. Some surgeons in dividing the tendo Achillis make two external wounds, that is to say, they suffer the point of the instrument to penetrate the skin on the opposite side of the tendon: others pretend to see a great advantage in making only a single external wound. We have operated both ways, and found no difference in them. When we used the concave knife, we generally made two wounds; but now with the straight knife, we make only one; but these wounds are so small that if a surgeon should think the operation easier and safer by

bringing the point of the instrument out on the other side of the tendon, the second wound would be no objection against this method; on the contrary, we would certainly advise him to adopt it. In fact, provided the general principles already laid down are followed, the mere mechanical execution of the operation is so simple that every surgeon of moderate skill will be able to perform it.

While the instrument is passing through the fibres of the tendon we always hear a peculiar grating sound, and when the division is completed, a distinct jerk, from the retraction of the severed extremities, is heard and felt. Sometimes, however, the surrounding cellular tissue is so tense, and the muscle so rigid in its contraction, that the extremities of the cut tendon cannot separate so suddenly, and consequently the jerk is not perceived. We should therefore make it a rule, after withdrawing the knife, always to ascertain with the finger whether the tendon has been completely divided, and if we feel some fibres remaining tense under the skin, we should introduce the point of the knife again through the same external wound, and divide these fibres. This accident may happen if the instrument is passed too closely round the tendon, so that the point enters between the fibres, those beneath the back of the knife, of course remaining undivided. We have never met with any untoward accident. Once, only, in dividing the tendo Achillis in a little girl of nine years of age, we had a slight hæmorrhage, and although the blood came out, at first, in a jet, it stopped almost immediately, the child losing hardly half an ounce. Scoutetten relates two cases of hæmorrhage after the division of the tendo Achillis; in one case, the little patient lost from eight to nine ounces of blood; he succeeded, in both cases, in stopping the bleeding by compression. Any accident that may occur, has, of course, to be treated according to the general rules of surgery.

We now arrive at a very important question, viz., whether to begin extension immediately after the division of the tendon so as to make the cut extremities at once separate as far as possible, or whether to allow the tendon time to unite again, and then to commence stretching gradually the yet soft intermediate substance; and if the latter method be preferred, how long will it be advisable to wait before the process of reunion shall be far enough advanced to exclude the fear of the divided extremities remaining reparated, or of causing inflammation?

Some of the French orthopedists have adopted and advocated the method of immediate extension; if our readers have had the patience thus far to follow our reasonings and views on the whole subject of tenotomy, they will readily perceive that we must be opposed to this proceeding; and we feel confident that the majority, nay, in fact, every prudent practitioner will agree with us, especially after having impartially considered the advantages and disadvantages of either method.

The disadvantages and perils of immediate extension are almost self-evident, so much so that even if a series of successful cases where no dangerous symptoms followed that procedure were adduced in favour of the method we should be inclined to consider them rather as so many lucky escapes, than as proofs of the safety of the method.

The dangers which we fear from this, so termed, improvement upon Stromeyer's method, and why we are opposed to it, are of a two-fold character; first, the tendon may not unite again, and thus the patient may be maimed for life. This is no vain apprehension, for it has been proved by experiment on animals, that a tendon will unite again if the extremities separate two inches from each other; but that reunion seldom takes place if the distance is greater, and never if it amounts to four inches.

The other danger is, that inflammation with all its consequences, as suppuration and sloughing of the tendon, may be caused by forcibly stretching the fresh wound, a danger which will also be increased by the impediment to

free circulation in the limb, arising from the compression of its blood-vessels by the fastening of the apparatus.

It certainly does not require much arguing to prove that these two results may follow immediate extension; and if they do, that they are so injurious in their consequences, that even if the yet doubtful advantages of the method, the saving of time and pain, could be proved, (which we by no means concede), we doubt much whether prudence could sanction it.

If we find that the space between the separated extremities of the tendon is filled up with plastic lymph, which is ascertained by a slight unelastic swelling under the skin, without pain or redness, we may safely commence extension without fear of disturbing the reunion. This exudation of plastic lymph generally takes place within twenty-four hours after the operation; but in cases where the ankle-joint is very flexible, and where the extremities of the tendon have separated more widely than usual, it may be prudent to wait a day or two longer.

After having by the division of the tendon, overcome the greatest obstacle to the reduction of the deformity, this must be effected mainly by mechanical means; for the operation itself produces hardly any immediate change in the appearance of the limb; of the value of external applications, frictions and champooing, we have said a few words already; they are useful assistants in giving tone to the muscles, but for the alteration of the shape of the foot the mechanical means can alone be relied upon. Various machines have been invented and used to accomplish this object; in fact almost every surgeon who has paid some attention to this branch of surgery, has contrived an instrument of his own which he thinks preferable to all others, because he is accustomed to use it. This only proves that the construction of the machine is of little importance provided it fulfils the indications of the case, which are,

1st. To bring down the heel.

2d. To bring down the inner margin of the foot; and,

3d. To relieve the contraction of the inner margin of the foot.

These three indications must be gradually fulfilled with the least possible external pressure, and with as little pain to the patient as possible.

The time which is requisite to reduce the deformity so that the patient can wear a shoe and begin to walk, depends upon so many different circumstances, as the degree of the deformity, the age and constitution of the patient, and many other things besides, that it is almost impossible to fix it with any degree of precision. However, we may consider from one to three months as a fair average, although we have treated feet that have withstood our orthopedic efforts much longer, sometimes eight months and more; and, even after the deformity is reduced, it generally requires a great deal of care and attention, and a long continued use of Scarpa's shoe, or a similar contrivance, especially in old cases of varus, before the patient is able to enjoy the full benefit of the operation. In fact, many patients with varus, after they have reached a certain age, require some kind of mechanical support for years and if they are left without it, the foot turns in again.

The eminent success which has followed tenotomy in the cure of club-foot has of course induced surgeons to carry out the same principles and the same operation in the treatment of analogous contractions and distortions; and we may almost say, that there is hardly a joint in the human body for which, if contracted, tenotomy or myotomy has not been performed within the last few years; no doubt many muscles and tendons have been unnecessarily divided and without success, and perhaps many more will be; yet it is certain that a large number of contractions have been relieved which, hitherto, had been considered incurable.

Squinting, which arises from a spasmodic action of the muscles of the eye, could no doubt be cured by a division of those muscles, if the slight incon-

venience of the disease could justify such an operation; yet if squinting existed to such a degree as to interfere materially with the functions of the organ, if the eye was drawn so much to one side that the pupil were covered, we think the attempt might be made. Stromeyer makes a similar suggestion.

New-York Journal of Med. and Surg., Jan. 1840, *p.* 1—64.

[Detmold and Stromeyer's suggestion about the cure of squinting has already been followed up with admirable success by Professor Dieffenbach as will be seen by referring to the following article. To shew what severe injury may be inflicted upon the tendo Achillis, without considerably impairing its utility, we would here state that some years ago we had a case in which a woman, by some violent exertion, either in walking or leaping, tore off a considerable portion of the os calcis, by means of the action of the tendon; both bone and tendon were forcibly drawn through the integuments, about an inch or an inch and a half above the heel; and as we found it impossible even to replace the bone, much less to keep it there, we separated it from the tendon, and replaced the latter as well as we could. The tendon afterwards sloughed away to a considerable extent; but, notwithstanding, the woman has completely regained the use of the limb, and walks nearly as well as with the sound leg.]

44.—ON THE CURE OF CONGENITAL SQUINTING BY DIVISION OF THE INTERNAL STRAIGHT MUSCLE OF THE EYE.

By Professor Dieffenbach, of Berlin.

Case 1.—The subject of this operation was a child seven years old, whose eye was drawn far into the inner angle of the eyelids, so as to produce considerable disfigurement. The operation was performed in the following manner: The head of the child was held against the chest of one assistant, while another with two hooks kept the eyelids widely apart. The operator then passed a third hook, which he gave to a third assistant to hold, through the conjunctiva, and to some depth in the subjacent cellular tissue at the internal canthus. He next fixed a fine double hook in the sclerotica at the inner angle, and taking it in his left hand drew the eye outwards. Then cutting into the conjunctiva close to the ball where it is continued from it to the internal canthus, and penetrating more deeply by separating the cellular tissue by the side of the sclerotica, he divided the internal rectus muscle close to its insertion with a fine pair of scissors. The eye was immediately drawn outwards by the external rectus, as if it had received an electric shock; and in another instant became straight, so that there was no difference perceptible between its direction and that of the other eye.

The hæmorrhage during the operation was but slight, though sufficient to impede it. The after-treatment consisted of cold lotions: no inflammation ensued, and within eight days, the cure was completed.

Case 2. Carl Gerhard, æt. 10, affected with squint since his fourth year. His parents wishing him to become a printer, were anxious to have this defect removed as it interfered with composing. The right eye was so completely drawn into the inner angle that on a first view, the point of junction of the iris and sclerotica formed the centre of the anterior surface of the eyeball. By an effort the eye could be drawn from the canthus and placed straight, but could not be turned at all outwards. The operation was performed as in the last case, the conjunctiva being cut through, and the sclerotica laid bare to the extent of four lines, in order to bring the muscle into view, which was cut with a curved scissors as before. The squint was gone; the eyeball when at rest stood nearly straight, or rather a little turned outwards; and could be

turned more readily by the patient's efforts in this direction than inwards. All the other movements of the eye were free. The bleeding was here much less than in the former case and caused no interruption. The sudden turning of the eyeball outwards, observed in the first case, did not take place here.

The boy felt quite well on the following day. He could separate the eyeball without difficulty. The conjunctiva in the inner angle of the eye was red. The eye was nearly straight, only turned a little more outwards than the other. In eight days the cure was complete and the eye quite straight.

Medicinische Zeitung, Nov., 1839, *and British and Foreign Medical Review, April*, 1840, *p.* 558.

[The same kind of operation has been performed by P. Bennet Lucas Esq., with success, as will be seen by the following case.]

Case 1.—Mary Ann Daly, aged 6, was born with her eyes perfectly straight. After the measles she suffered much from repeated attacks of strumous ophthalmia, on being cured of which, it was found that her right eye was permanently turned deeply into the inner canthus, with also a slight degree of obliquity upwards. The strabismus has existed for three years. When the unaffected eye is closed the turned-in one endeavours to right itself, and the child, by an effort can direct it as far as the centre of the orbital axis, but it speedily returns to its abnormal condition. The child is powerfully strong, of very full habit, and of a strumous diathesis.

April 11, 1840. In the presence and with the kind assistance of Mr. Fitzmaurice, Mr. Wardrop, Jun., and Mr. Alexander, I proceeded to perform the operation for the division of the internal rectus muscle, in the following manner. The child was received in the lap of one assistant, and her head allowed to rest on his right arm and chest, by which it was partially secured. The eyelids were kept apart by Mr. Fitzmaurice, and the struggles were prevented as much as possible. With a forceps and an artificial pupil knife I easily divided the conjunctiva from below upwards, about three lines distant from the cornea, and thus exposed the sclerotic coat. The edges of the incision almost immediately became swollen, from the effusion of blood and tears into the connecting reticular tissue, forming a partial chemosis. Very slight hæmorrhage took place from the divided vessels of the conjunctiva, which was checked by the application of cold water. Upon the eye being again exposed, the incision was readily recognised, and introducing a small blunt probe between its edges, I separated the reticular tissue, connecting the inner portion of the conjunctiva to a sufficient extent to enable me to reach the insertion of the internal rectus; I then introduced a bent probe, and directing it from below upwards, had little difficulty in inserting it between the tendon of the muscle as it approached its insertion, and the sclerotic coat. Thus, having the muscle on the probe at my command, I allowed the eye to rest for a moment or two, and then carefully and gently drawing the tendon towards the incision of the conjunctiva, I divided it with a pair of common scissors, and withdrew the probe.

The eye soon resumed its normal condition, and the axes of both harmoniously corresponded. On the division of the muscle the eye was not forcibly drawn outwards, it gradually returned to its place. The lids were now allowed to remain closed; a layer of lint, dipped in cold water, was placed over them, the following powder was given, and the child soon after fell asleep:

Calomel, 2 grs.: James's powder, 3 grs.

12. Both eyes are perfectly straight, and follow each other's movements with regularity. The child's bowels have been moved three times, and in all respects she is free from fever and excitement.

I have performed this operation in two other cases, without any material deviation. One in a child five years old, was equally successful. In the other, that of an old woman of sixty, it was unattended with benefit to the strabismus, which was of fifty-seven years' standing.

[The operation in another case, that of Mr. Crossland, is related by Mr Bennet Lucas as follows:]

In the presence and with the assistance of Dr. Carroll, Mr. Toogood Downing, Mr. Wardrop, Jun., and Mr. H. Downing, I performed the following operation:—A bandage was applied to the sound eye, to exclude the light, and the patient was seated on a low-backed chair before the window, and his head reclined against Mr. Downing's chest, who also supported the upper eyelid by means of the wire speculum. Mr. Wardrop, Jun., depressed the lower lid. The patient, who possessed great moral strength, everted the turned-in eye to his utmost, and with the greatest facility I introduced a small, fine-pointed hook into the inner conjunctiva, about three lines distant from the cornea, and with a very fine, straight knife I divided this membrane from below upwards, to the extent of half an inch, leaving the hook still attached to the inner segment of the incision. I next separated the divided inner portion of the conjunctiva from the subjacent sclerotic coat by means of a blunt probe, and having introduced between the lips of the incision the bent probe, I parted it underneath the tendon of the internal rectus muscle The hook was now withdrawn and the operation was suspended for a moment. I next raised the tendon by means of the bent probe towards the incision of the conjunctiva, so as completely to bring it into view, and with a curved scissors divided it. The eye immediately resumed its natural position. The hæmorrhage did not amount to as much as two drops, and the operation was completed in a minute and a half.

Calomel, 2 grs.; James's powder, 3 grs. A saline draught in the morning.

22. The inner conjunctiva is slightly ecchymosed; the eye is perfectly straight. Mr. Crossland had a good night.

24. Ecchymosis of conjunctiva is disappearing. The state of the patient is most satisfactory.

26. The patient is in every respect going on well; he suffers no pain in the eye; the inner conjunctiva is still reddened, and a layer of lymph exists in the site of the incision; the redness evidently exists for the purpose of reparation, which is going on beautifully, as the patient was not aware of its existence until he saw it by means of a glass. He goes to business to-morrow.

[Mr. Lucas concludes his interesting papers by the following observations:]

As will be observed, on the perusal of the foregoing cases, and of those which have appeared in the Lancet of April 18th, the operation for the cure of strabismus which I have now successfully employed in five cases, differs in many, and, I would say, essential particulars from that adopted by Professor Dieffenbach; indeed, when I first attentively considered the detail of the three cases as reported in the "British and Foreign Medical Review," I was struck with the number of hooks which were employed, and the necessity arising therefrom for many assistants who, in all operations, but especially in operations for the eye, too often interfere with each other, and with the operator.

In Professor Dieffenbach's operation, no less than four hooks are employed, and one of these a double one: two for the purpose of keeping the eyelids apart, a third is passed into the conjunctiva, and the fourth, the double one, is fixed into the sclerotica. In none of these cases, with the exception of Catherine Cuthbert's did I use more than one hook; and in the case of

the child, Mary Anne Daly, I used none, having divided the conjunctiva with a knife and forceps. This latter instrument I have since found is not, for many reasons, to be depended upon as much as the hook; it gives more uneasiness to the patient, and is apt to lose its hold of the conjunctiva, which the hook never does until it is intentionally removed.

London Lancet, April 18, 1840, *p.* 135, *and May* 2, *p.* 189.

[Dr. Franz also relates two successful cases of the same kind in the Medical Gazette for April 17, p. 151, and besides these instances we have eminent surgeons who have given cases in the periodicals.]

45.—TREATMENT OF STRUMOUS OPHTHALMIA.

By JOHN WALKER, Esq., Surgeon, Manchester.

I differ in opinion from those who inculcate the necessity of antiphlogistic treatment in the ophthalmia of strumous subjects. I am not aware that any good effects, which may not be obtained by other means, can result from its adoption. Strumous ophthalmia, according to my experience, always more readily yields to the stimulant treatment, when properly employed, than it does to the antiphlogistic. I make these observations as definitely applicable and true, whether the disease be in the acute or chronic stage; whether it be more or less intense; whether it be confined to the conjunctiva, or have extended to the cornea, or even to the sclerotica; the principle in all these cases is still the same, viz., the necessity to use stimulants. But the stimulants to be employed must be selected in accordance with the severity of the attack. If the attack be slight, then the milder stimulants will be sufficient; such, for example, as the sulphate of zinc solution and the zinc ointment; if somewhat more severe, the sulphate of copper solution and the red precipitate ointment; if very active, the sulphate of copper in substance: or the nitrate of silver, either in solution, ointment or substance.

In the treatment of this affection it often happens that the more powerful the application, the better the success; while, on the other hand, the milder stimulants sometimes appear only to irritate, not to destroy the morbid action. In an acute case I should generally prefer the nitrate of silver pencil, applied directly, but lightly, to the conjunctival surface; whereas, in one of a less intense character, I should probably use the sulphate of copper in substance, as well as some of the other stimulants before-mentioned.

The only local adjuvants I deem necessary are such as have a sedative tendency, e. g. warm water, poppy fomentation, saturnine lotion in a tepid state or a solution of the extract of belladonna. The last, more particularly, is often productive of great relief where the eyes are excessively intolerant of light. In its effects on the iris we have indubitable evidence that it acts immediately, and in a peculiar manner, on the nervous system of the eye. The liquor opii sedativus, in the proportion of a drachm to an ounce of water, is also highly extolled by some surgeons as a local application.

Counter-irritation, by means of blisters, setons, or issues, I scarcely ever resort to. Blisters, more particularly, when applied behind the ears, are very apt to be followed by many disagreeable results; they almost invariably excite inflammation and suppuration of the neighbouring glands; effects which are the more readily produced, on account of the tendency to disease which exists in them from the presence of the strumous diathesis.

In the management of more obstinate and protracted cases, I must remind you of the caution I formerly gave, as to the excessive employment of the nitrate of silver. If employed a great many times, it may produce more ulceration of the conjunctival surface than will be agreeable; and, therefore,

as soon as the symptoms improve, you may properly substitute the sulphate of copper for the nitrate of silver. But I would observe, that I am not one of those fastidious practitioners who would rather permit vision to be destroyed than run any risk of producing an unimportant change in the structure and appearance of the conjunctiva.

The internal treatment should be such as is calculated to increase the energies of the system. The various medicinal agents known under the appellation of tonics, such as the mineral acids, chalybeate preparations, and more particularly quinine, can alone be expected to be productive of benefit. Perhaps the sulphate of quinine is the best; it may be given in doses of half a grain or a grain, with a little sugar, to children three or four times a day.

Iodine is thought by some practitioners to possess properties which render it useful in the treatment of struma, and particularly of glandular enlargement. In such cases it often produces very decided benefit; but I very much doubt if it has any control over the affections of the eye, although M. Lugol has expressed himself very strongly to the contrary. The formula recommended by Lugol is the following:

Hydriodate of potash, ℥j; Iodine, grs. iij; Water, ℥iij.

The dose is half a teaspoonful three times a day, for children. For the enlargement of the glands, the following liniment is recommended:—

Hydriodate of potash, ʒj; lard, ℥j.

M. Dupuytren, who was adverse to the use of antiphlogistic remedies, appears to have placed the greatest reliance upon the internal administration of belladonna in the treatment of strumous ophthalmia; and Mr. Middlemore states, that Professor Koreff assures him, that he has witnessed the most surprising benefit from the internal administration of the same remedy.

London Lancet, Feb. 22, 1840, *p.* 780.

46.—THE TREATMENT OF GONORRHŒA BY FREQUENT AND WEAK INJECTIONS WITH SULPHATE OF ZINC

[An anonymous correspondent of the Lancet recommends the following simple, but apparently efficacious treatment of gonorrhœa, which however, the editor of the Lancet states has been adopted for several years back by Mr. Thomas Evans, late of Mortimer-Street, London.]

It consists simply in the *very frequent* injection of a *very weak* astringent solution into the urethra, the only necessary condition being, that the operation should be performed at very short intervals, and the solution so weak as to occasion little or no pain. The solution that I have found to answer best, is that of sulphate of zinc, in the proportion of one grain to the ounce of water, to be still further diluted if the patient feels the injection painful. Before each injection a jet of urine should be discharged, in order to clear out any morbid contents that may be accumulated in the canal. The instrument used should be a small syringe, surrounded at the point with a little lint, or other soft material, which serves to protect the tender orifice of the urethra from the contact of the harder substance. The operation can be very easily performed by the patient himself, and scarcely needs description. The syringe being filled with the solution, its point is to be introduced a little way into the urethral orifice, and, by a little manual dexterity, the ring or handle of the piston is to be pressed steadily, and the contents of course injected. The syringe is to be retained in that position for about a minute, in order to keep the solution in contact with the inflamed surface, and is then to be removed gently, when the sides of the urethra collapsing, the fluid will be dis-

charged with a jet, and the operation is completed. It should be repeated at intervals of twenty minutes, or every half hour during the day. The immediate effects of this application, if properly performed, are a very slight smarting sensation in the canal, scarcely amounting to pain, and succeeded very soon by marked relief in passing water. The scalding becomes greatly lessened after each injection, and is soon completely removed, the cure in slight cases, being accomplished in twenty-four hours, and the most severe which I have had an opportunity of treating, always yielding in the course of three or four days, at farthest. If any pain be caused by the injection, it may be removed at once, by injecting a little cold water immediately afterwards, and diluting the solution a little more. However, it ought to be of such strength as to produce a slight tickling, or itching sensation in the part, and this will subside altogether in a few moments.

Since that time I have had many opportunities of testing this treatment, and it appears to me to be incomparably superior to any other that are at present known. It has never, so far as I have yet seen, been succeeded by any symptoms of stricture, even in those who, from irregularities of life have had frequent recourse to it; nor has it in any one instance, been followed by testitis, though one might suppose, from the quick removal of the disease, that there might be some danger of a metastasis; but this may be explained by the fact, that although the discharge is *quickly* removed by this plan, still it is *gradually*, and not *suddenly* suppressed, as it might be, were the injections used very strong and painful. I wish also to add, that I have tried several other weak solutions, such as those of alum, nitrate of silver, and acetate of lead, but I have not found any to be attended with so little pain, or indeed, to answer so well, in every respect, as that of the sulphate of zinc.

London Lancet, Feb. 22, 1840, *p.* 792.

47.—NEW AND NATURAL METHOD OF REMOVING CALCULI FROM THE BLADDER.

By John Hancock, M. D.

[We extract the following from the Medical Times, though we confess ourselves unable to judge how far the experiment would be practicable and successful.]

The method now proposed, is to furnish a defensive sheath to the irritable coats of the urethra, so as to admit of its distension by instruments gradually increased in size: by which means the greater number of cases of calculi may be relieved without any further operation; whilst others, in which the stone is large will admit of the easy application of the instruments of lithotrity.

The method in question consists in introducing a portion of the intestine of some animal upon a curved tube or catheter, which is open at the extremity, but fitted with a flexible metallic stilet, having a rounded head, which serves both to direct the instrument and keep the sheath in its place till it enters the bladder. Attached to the stilet is also a piece of gut-skin, which falls over the end of the instrument. The stilet is then withdrawn (which releases the sheath,) and afterwards the catheter, and one of larger size is introduced. The sheath, remaining in the urethra, is so exceedingly smooth and slippery, that it gives a facility to the use of large instruments—guarding the tender coats of the urethra against all irritation, and allowing it thus to be dilated by the successive introduction of instruments of larger dimension, through which numerous calculi will be discharged. This may be varied as circumstances require:—at times used in form of a *cæcum*, or closed

at the inner extremity, so as to be filled with water to facilitate the entrance of instruments, especially in cases of malformation or distortion of the part.

The instrument here described is also the best form of a catheter for general purposes, and will often be found to let off unsuspected gravel or small concretions which could not pass through the small perforations of the common one whilst in those cases in which a stone is too large to be passed whole, it is plain that it will afford the greatest facility for the operation of *lithotrity*.

Very few persons appear to be aware of the great *dilatability* of the urethra. By continuing the process for a few weeks, it may, with very slight inconveniences, be brought to the calibre of an inch and more; and when we consider how comparatively small a number of calculi exceed this diameter, we shall form some idea what vast numbers might be effectually removed by this means alone.

But I never thought of applying it to the present purpose until lately reflecting on a case stated in the "Edinburgh Medical and Surgical Journal," 1828, of a Scotch clergyman, who adopted an analogous plan for relieving himself from small calculi. The following is the case:—

"Having laboured for many years under enlarged and indurated prostate, symptoms of stone supervened, as also perpetual retention of urine, which was never passed for years without the catheter, by the eye of which several small calculi were, at different times, brought out. His urethra was of very large calibre, quite callous, and bearing any freedom. He cut off the vesical extremity of the catheter, had it plugged up very neatly with a ball of silver, attached to a silver wire, to enable it to pass smoothly into the bladder. When introduced the ball was withdrawn, his forefinger applied to the outer orifice of the tube, and, after discovering the quarry of stones, he removed his finger, when the sudden gush of urine in a large stream often brought one or two calculi along with it."

Medical Times, Jan. 18, 1840, *p.* 155.

48.—ON TREATMENT OF CANCEROUS OR MALIGNANT DISEASES.

By R. Carmichael, Esq., Dublin.

I have lately tried a new chemical combination of arsenic, mercury, and iodine, invented and recommended by Mr. Donovan of this city. The instance in which it has been tried is at present in the hospital, a case of lupus, engaging a nose and palate of many years' standing, and which has destroyed the greater part of the nose. He has been using this remedy but four weeks, and most decisive change has taken place for the better; so much so as to have surprised my confreres of this hospital on the last consultation day. The ulcer of the nose is now perfectly healed, while the patient himself is apparently much improved in constitution. It is given in the form of solution; and according to Dr. Donovan's communication in the 17th volume of the Dublin Medical Journal, the proportions are as follows:—

"Of this *liquor hydriodatis arsenici et hydrargyri*, each drachm measure consists of

Water, one drachm.
Protoxide of arsenic, one-eighth of a grain.
Protoxide of mercury, one-fourth of a grain.
Iodine (converted into hydriodic acid), four-fifths of a grain.

The colour of the solution is yellow, with a pale tinge of green: its taste is slightly styptic. It cannot be properly conjoined with tincture of opium, or with sulphate, muriate, or acetate of morphia; for all these produce immediate and copious precipitates in it. Hence, if opiates are to be used dur-

ing the exhibition of this arsenico-mercurial liquor, they must be taken at different periods of the day. Tincture of ginger produces no bad effect. The following formula is proper:—

R. Liquoris Hydriodatis Arsenici et Hydrargyri, drachmas duas; Aquæ Distillatæ, uncias tres cum semisse; Syrupi Zingiberis, semunciam. Misce. Divide in haustus quatuor. Sumatur unus mane nocteque.

Thus one-sixteenth of a grain of protoxide of arsenic, and one-fourth of a grain of protoxide of mercury, would be taken in each dose, along with two-fifths of a grain of iodine, which being in the state of combined hydriodic acid, will be much diminished in energy of medical effect. This, no doubt, is the proper dose to begin the exhibition of arsenic with; but it will be very soon necessary to increase it.

The division into draughts is here necessary: first, to insure accuracy of the dose, so essential in the case of this active medicine: and next, to prevent injury to the ingredients by the use of a metallic spoon as a measure —the general way in which, unfortunately, the dose of a medicine is determined."

I have been thus full in my account of this new remedy for diseases of a malignant character, to which class I am inclined to think lupus belongs, because I have every reason to believe, from the trial I have made of it, in this as well as in some other cases of a similar nature, that it will be found a most useful medicine. Arsenic has been highly extolled as a cure for cancer, so much so, that it is in general introduced as the chief ingredient in all the secret plasters or applications for the disease; for instance, Plunket's plaster, which is a favourite remedy, known in all parts of Ireland. It occasions great pain and swelling of the surrounding parts; but it also causes deep sloughs of the cancerous mass, and is certainly often successful, where this is of but little extent, in drawing out, as is the usual phrase, the cancer, together with its roots; but when the carcinomatous substance is of large size, even less than that of a pigeon's egg, I should deem it not only a most painful, but hazardous application.

The *chlorate of zinc* has been, within the last few years highly extolled as an escharotic for the cure of cancer. It has been brought into notice by Mr. Cross, and Dr. Ure, and, recommended by such respectable authorities, I gave it a trial in several instances; from which I have come to the conclusion respecting it, that though not so objectionable as the oxide of arsenic, on account of the poisonous nature of the latter, it excites just as much pain and inflammation, without destroying to the same extent, the carcinomatous substance; I therefore do not feel inclination to try it again.

With respect to the narcotic tribe of remedies, such as conium maculatum, belladonna, and hyoscyamus, I shall briefly observe, that although I have, perhaps, seen as much of this disease as any other man, I never saw a patient benefitted by those medicines farther than their influence in mitigating pain, notwithstanding all that Baron Storck has said with respect to their efficacy. Opium, as a palliative, and anodine, is vastly superior to any of them.

I need only briefly allude now to what I have said respecting the cases upon which alone I would permit operation. But upon this head, perhaps, it is better to speak negatively:—

1st. If the patient possesses that peculiarly pale countenance which shows a predisposition to the disease, and particularly if there is any reason to believe, on inquiry, that such predisposition is hereditary, I should decline to operate, no matter whether the axilla is free from disease, or that the tumour does not adhere to the pectoral muscle.

2nd. I should decline operation if there are any general or physical signs

that the lungs are not sound, or that there is reason to suspect they are tuberculated.

3rd. I should also decline operation if the axillary or other lymphatic glands in the neighbourhood of the tumour were hard and knotted, or that the breast was adherent to the parts underneath.

It follows from these objections against operation, that the field for it in cancerous complaints is, in my opinion, very limited. In fact, I would confine it to those cases where it either arose distinctly from accident or in persons, otherwise healthy, in whom the neighbouring lymphatic glands are totally free from disease. If these exceptions to operation were attended to, we should not have those frequent ackowledgments of its want of success detailed by the most celebrated practitioners in Europe.

Mr. Carmichael's Lectures.— Dublin Medical Press, March 4, 1840, *p.* 153.

49.—TREATMENT OF GONORRHŒA.

By M. VELPEAU.

[Finding that copaiba so frequently disagreed with the stomach, M. Velpeau introduces his doses of ʒi. of the balsam, mixed with four ounces of a viscid fluid and a little opium, up the rectum in the form of enema. Although the patient can seldom retain this long enough, yet in some cases the effects are precisely the same as when the balsam is taken into the stomach; it soon cures the disease. But M. Velpeau's favourite remedy is a mixture of copaiba and cubebs, as follows:]

Take of balsam of copaiba two drachms, powdered cubebs six drachms, powdered opium two grains, mix, and add sufficient carbonate of magnesia to form a paste, which is to be divided into six parts, one to be taken three times a day, and, generally speaking, three doses will effect the cure. But we should not discontinue the administration of it for a few days after, as, if we do, the discharge is very likely to return, and what is worse, in increased quantity. By following the plan I will now lay before you, you will be able to act most beneficially for your patient. Commence by ordering the medicine according to the preceding formula for *three days*, then one day is to be passed without any being taken; on the fifth it is to be resumed, and continued for three days more, then an intermission, and on the ninth, commence again and continue for three days more; this will be found mostly to be quite sufficient. You must, however, always pay particular attention to the state of the stomach and bowels during its use.

[Speaking of the nitrate of silver as an injection, which he prefers to sulphate of zinc, and all other injections, he says:]

I have tried it myself very frequently, and of various degrees of strength; with one grain to the ounce it has been eminently useful, particularly in old standing cases, when the quantity has been increased to two grains to the ounce. Of four patients treated according to this plan, two were cured in five days, thus affording proof of its efficacy in the chronic form; but when carefully used, together with compression of the urethra it is also very useful in the acute stage. The way in which the compression is to be made is by the application of small compresses placed along the lower portion of the urethra, (the bulb and membranous portions), and retained there by a bandage: the solution is then to be injected, and retained in the canal for two or three minutes; this is to be repeated two or three times a day; and after continuing this for three days I stop, but return to it again if the complaint be not entirely removed. Proceeding on this plan, several patients in whom the complaint had resisted all other remedies have been cured; but in using com-

pression, you should be aware that occasionally the glans penis and prepuce became inflamed, and of a greater or less livid hue: these circumstances, however, should not deter us from its use, but as these symptoms arise, so they should be treated by warm fomentations, emollient enemas, taking care not to keep up the compression for too long a time. A good deal has been said of the injurious consequences following the use of injections, some asserting that the fluid may pass into the bladder, and produce fatal inflammation of it; so much has this been spoken of, that many of the more timid practitioners have entirely discarded the use of these remedies, but in my opinion these serious accidents are merely chimerical. It has likewise been asserted, that they are the cause of stricture being formed: now, I do not consider so, as stricture is but the thickening of the lining membrane of the urethra; it is more likely to ensue from long standing inflammation than the use of astringents. How then can we reconcile the fact of their being produced by the very means that destroy the inflammation most speedily? Then again, how many individuals have stricture who never had gonorrhœa; and others who have never made use of injection; hence, from all I know concerning this complaint, I consider injections are very powerful and useful remedies, especially in the chronic forms of gonorrhœa, and in this last form the solution of the nitrate of silver certainly ranks the highest.

Medical Times, Feb. 1, 1840, *p.* 187—*and Feb.* 22, *p.* 223.

[Mr. Carmichael is equally fond of injections of nitrate of silver in these complaints, but in much smaller quantities. He uses only one quarter of a grain to the ounce, and seldom increases it to a grain.]

From the beneficial effects of nitrate of silver on external gonorrhœa, and primary ulcers arising from the same poison, I prefer it to all other ingredients employed in the composition of injections, but direct it in such proportions as will not inflame the urethra, and therefore usually begin with a quarter of a grain to an ounce of distilled water, increasing the proportion of the metallic salt gradually to that which can be borne with impunity; but this has seldom amounted to a grain to the ounce. The patient is directed to use it three or four times daily (always after passing water), by means of a bone or gumelastic syringe, and to retain it in the urethra, by closing its orifice for a few minutes after each injection. In women, on the contrary, we may order, without risk, two, three, or four grains of the nitrate of silver, to an ounce of distilled water; and as in them we can employ this remedy of sufficient strength without apprehension of unpleasant consequences, the amendment is proportionably rapid. When this injection answers, I never employ any other; but injections of a solution of acetate of lead, or sulphate of zinc, in plain distilled or rose water, have their advocates. From one to three grains of either, to the ounce of liquid menstruum, are the usual proportions. The first appears to me to be the most applicable while any inflammation remains. M. Ricord speaks in high terms of a solution of the iodide, or proto-ioduret of iron, as an injection. He has used from one to eighteen grains of this preparation to an ounce of distilled water, but I should not feel inclined to go much beyond his minimum proportion. It is a powerfullly astringent substance, and although I never myself employed it, I think it right to notice an application recommended by such high authority on the subject.

[And speaking of the treatment of the same disease with nitrate of silver in females, Mr. Carmichael says:]

The stages of the disease are the same as in men, and may either occupy singly the vulva, vagina, urethra, and uterus, or two or more of these parts at the same time. The first stage, or that of inflammation, usually attended

with some ardor urinæ, should be treated on the antiphlogistic plan, for it is seldom that a medical man is consulted on the first appearance of the disease so as to enable him to extinguish it at once by the application of nitrate of silver in solution. I should, however, feel no hesitation in making the attempt, were I consulted on a case sufficiently recent to afford a prospect of success. For, if the disease has not extended into the urethra, no danger is likely to arise from the application of the solution in question, (even of considerable strength—for instance, ten grains to the ounce of distilled water,) to the surface of the vulva and vagina. But, unfortunately, we seldom have an opportunity of thus speedily extinguishing the disease, as in at least two-thirds of the cases of gonorrhœa in females, the urethra is affected; so that it would be necessary in most instances, to apply the solution to this passage as well as to the vagina, which would be as objectionable as in males.

Dublin Medical Press, April 29, 1840, *p.* 283—285.

50.—HYDROCHLORATE OF BARYTA IN STRUMOUS OPHTHALMIA.

By Dr. Payan, of Aix in Provence.

[We extract the following chiefly for the purpose of showing that Dr. Payan agrees with Mr. Phillips in extolling the efficacy of barium in scrofulous diseases, as will be seen by referring to the 39th article in this work.]

Dr. P. having observed that this remedy was used with excellent effect by Lisfranc in scrofulous diseases, he resolved to try it in an obstinate case of ophthalmia accompanied by a high degree of photophobia. The patient was six years of age. He dissolved two grains of the hydrochlorate in three ounces and a half of "eau sucree," and this quantity was taken in portions during the course of the day. No particular effect being produced, on the third day three grains were taken, and the dose was gradually raised to ten grains in the course of the day. On the twentieth day the medicine was discontinued, the patient being considered nearly well. In another case, twelve grains in the course of the day were taken with excellent effect, and without any symptoms of gastric irritation being produced. During the administration of the remedy, Dr. Payan orders a light and sparing diet, considering that harm is frequently done by the tonic medicines and stimulating regimen which are generally ordered as a matter of course in strumous ophthalmia. It is true that the scrofulous constitution is often accompanied by an atony which is marked by a pale and pasty complexion, feeble circulation, a low degree of sensibility, and a general indolence of mind and body; but the same scrofulous disposition is frequently developed in persons of a lively temperament, animated countenance, habitually quickened circulation, and mobile and easily exciteable nervous system. It is in this latter class of persons that we most frequently find that acute sensibility of the retina which produces photophobia, with the accompanying spasmodic contraction of the eyelids, and abundant secretion of tears. In these cases, a generous diet and wine and tonics will increase the general excitement, and consequent irritability of the retina, whilst the barium appears to act as a sedative, and combined with a mild diet produces a general soothing effect.

Revue Medicale, and British and Foreign Medical Review, April, 1840 *p.* 552.

51.—CURE OF AN OLD DISLOCATION OF THE HUMERUS, BY DIVISION OF THE MUSCLES IN ITS NEIGHBOURHOOD.

By Professor Dieffenbach, of Berlin.

Thomas Herr, a large landowner, upwards of thirty years old, had his right shoulder dislocated two years ago by a fall from his horse; the nature of the accident was not at first recognized, and afterwards, though all the usual means were adopted by several surgeons, the bone could not be returned to its place. The patient, therefore, came to Berlin; he was of a gaunt, powerful form, with a pale complexion and but little fat, and his muscles were strong and prominent under the skin. The injured right shoulder was an inch higher than the left; the acromion formed a sharp angle; on the outer side, the shoulder was deeply hollowed, and the scapula lay flat. The right arm was thinner than the left, and stood out far from the body. The head of the humerus lay on the anterior side of the chest, close to the clavicle, and two inches from the upper portion of the sternum. The patient had a constant sensation of cold in the limb, and the creeping which he had formerly felt had ceased. The pulse in the right radial artery was rather weaker than that in the left. The limb was useless, and only the hand could perform some slight actions.

By moving the arm in different directions, severe pain was produced in the part where the head lay surrounded by a thick wall of dense ligament into which it had worked itself. In drawing the arm outwards from the body the pectoralis major latissimus dorsi, teres major, and teres minor became tense with extreme pain. The last three of these muscles felt hard and tense, even when the arm was not drawn outwards. An attempt to reduce such a dislocation without dividing these muscles and the new joint would have been extremely dangerous, and had been found impossible; but (says the professor), I anticipated success from the subcutaneous division of everything that resisted me.

The patient being placed on the table, with one folded sheet passed under the right axilla, and held by six assistants, another fastened round the right hand and held by six more, and a third round the upper part of the humerus held by three more (in the manner usually adopted by me in old luxations), the first two sets of assistants were ordered to pull against each other. I next bade them make a slowly increased extension, and then stop; I then passed a small scythe-shaped knife through the skin, and divided the most tense portion of the pectoralis major close to its tendon, which yielded with a cracking sound. I then again introduced the knife at the posterior border of the axilla, and divided one after the other, the latissimus dorsi, the teres major, and the teres minor. All these muscles gave way with a cracking noise, which was increased by the resonance of the chest. I next passed my knife into three places by the head of the humerus, and divided, in a similar manner under the skin, the dense and hard false ligaments which surrounded the new joint, and lessening the extension, I loosened the head by a few rotations.

A powerful extension was now again commenced on both sides, and the three assistants behind the patient pulled suddenly while I conducted the humerus towards the joint into which it slipped on a sudden, without again springing out. One shoulder looked now just like the other. The thorax, the shoulder, and the arm were enveloped with bandages which were soaked with paste, and after a few hours they all became dry and hard, and prevented any motion of the right side.

The bleeding from the wounds, which were not larger than those made in phlebotomy, was at most, a few drops. No unpleasant symptoms ensued, and the patient suffered even less than the majority of persons in whom I

have reduced old dislocations. On the ninth day I took off the bandage; both shoulders had exactly the same level and form, and there was neither swelling nor pain. The punctures in the axilla had completely healed, and scarcely a trace of them could be found; there was no collection of blood or pus. The arm was already capable of motion, and its actions were far less hindered than they are sometimes after the reduction of recent dislocations; because in them there is often for a long time a sensitive contraction of the unnaturally stretched muscles, while in this case the division of the resisting muscles and of the newly-formed joint not only rendered the reduction possible, but at the same time diminished its after consequences. The limb is now restored to perfect utility.

The Professor adds that he had lately occasion to reduce a luxation of the foot backwards, of upwards of a year's standing, by dividing the tendo Achillis, which forcibly drew the heel upwards. This limb also became useful again.

Medicinsche Zeitung, Dec. 18, 1839, *and British and Foreign Med. Review, April*, 1840, *p.* 555.

52.—TREATMENT OF VARICOSE VEINS.

By A. T. S. Dodd, Esq., Surgeon to the Chichester Infirmary.

[Mr. Dodd gives a list of eleven cases in which his treatment of these troublesome affections was unusually successful. An interesting article on the same subject will be found in the preceding number of the British and Foreign Medical Review, by M. Bonnett, to which this of Mr. Dodd's forms "an appropriate English Appendix." He observes:]

The plan of treatment which is the subject of this communication was first recommended, as far as I know, by M. Velpeau. It consists in passing a needle (I prefer a flat one, slightly curved at the point, such as are used in inspections), through the integument, a little to the one side of the vein, taking care that it shall go under the vessel, without wounding it, bringing it out at the same distance on the opposite side. A wax silk ligature is then passed round the projecting ends of the needle in the form of a figure 8, just as it is applied in harelip. The projecting point of the needle is guarded by a little bit of cork, to prevent its catching in the clothes, or injuring the other leg. Very slight pressure is sufficient to accomplish the object to be gained by the ligature, therefore it need not be drawn tighter than is necessary to obstruct the circulation through the vein. In about from twenty-four to thirty-six hours, inflammation is excited in the immediate neighbourhood of the ligature, which goes on increasing slowly while the needle remains. As this inflammation is the effective means of cure, by producing permanent obstruction to the flow of blood through the vein, and obliterating the cavity of this vessel, it is obvious that it should be allowed to proceed just so far and no further than is necessary for the accomplishment of this object, and that the length of time which the needle is allowed to remain must be entirely regulated by this. My colleague, Mr. Duke, and I, have generally found that from four to eight days have been sufficient to effect our object, though the exact time must of course vary according to the nature of the individual constitution and its aptitude in taking up the inflammatory action. I am guided by the appearance of the local inflammatory symptoms, and by the fact of the commencement of ulceration at the point of the skin where the needles pierce it. If this has begun, it is time to remove the needle, and, generally speaking, enough inflammation is found to follow for the sealing up of the vein. If ulceration has not taken place when the needle is withdrawn, it is generally necessary to repeat the operation, from the circulation being

renewed through the diseased vessel. At the same time it is necessary to be careful not to allow the process of ulceration round the needle to remain in action long, as from this cause, in one case, troublesome ulcer resulted in this very spot, though the sore for which the practice was adopted was cured. I have not found this to occur when the above precaution was adopted. The only adjuvant treatment that has generally been required is low diet, recumbent position, and, when the needles are withdrawn, the application of the warm water dressing. Should the inflammation appear more than needful, of course the treatment would be modified as circumstances arise.

The time required for the cure must, of course, vary much, according to the peculiarities of the case, from the habit of the individual, or the nature of the disease. In all the cases, but one, that we have treated, there was an ulcer connected with the diseased veins, but the duration of the treatment seemed to be not at all influenced by the previous duration of the ulcer, or, indeed, of the diseased state of vein. If the system bore the operation kindly, and too great irritation and inflammation was not set up, the cure generally proceeded with rapidity, and was always effectual and permanent, if the treatment was carried to a proper extent. The shortest period required in any of our cases for the completion of the cure, was three weeks, the longest seven weeks. The one case, which was of simple varicose veins, without an ulcer, had them immensely enlarged, and actually painful and tender, and apparently ready to burst, so that the patient was unable to attend to her duties. Four weeks were here sufficient to make a permanent cure, the affected veins being reduced to a hard cord.

With regard to the number of needles necessary to be applied, though one was sometimes found to accomplish the obliteration of the vein, yet it was found a more effectual plan, and not productive of more after-suffering, to insert two under the same vein, at about two inches distance apart, though it is not always that the enlargement of the vein offers sufficient length for this.

Where it does, however, the obstruction produced by the two needles is more certain, and more effectual, without any greater risk, as far as my experience goes, of injurious effect to the vein. In some cases the ulcer does not yield, or yields only partially to the application of the remedy to one vein, and then it is necessary to take up a second, or even a third, found in its vicinity. In one instance an enormous ulcer was rapidly reduced to about a fourth of its size by the obliteration of one vein; but though five needles were at different times inserted, and effectually, as regards the obstruction of the veins, yet the ulcer was never effectually cured. In the case of varicose veins, unaccompanied by ulcer, Mr. Shute, the house-surgeon, under whose care it was, inserted at the same time five needles—two upon the principal branch, and three others upon branches in the immediate neighbourhood, which communicated with it. Some erysipelatous inflammation was excited, which readily yielded on the removal of the needles, on the eighth day. The number of needles, however, which we employed in most of our cases was two.

The rapidity with which the curative effect upon the ulcer displayed itself was surprising. In twenty-four hours the commencement of cicatrization was seen in one instance, and in forty-eight hours the tender cuticle had more than half covered the granulations. This was not, however, so strikingly the case in every instance, though in all the progress was satisfactory. I observed, however, that the latter stages of healing were not commensurate with the earlier, the progress of cure being much slower, and, in one instance, remaining stationary, after being readily reduced to about a fourth of its former size.

I was struck with the appearance of the cicatrix in all these cases. Instead of the reddish tender-looking cicatrix which we usually find after a recently healed ulcer, I observed that after the application of the needles the resulting

cicatrix had, in the course of a few days after its forma
appearance of one of considerable standing, and even a st
in the neighbourhood of the ulcer under treatment, had its
ified, in becoming clean and free from a scaly incrustation, a
white fine appearance of a healthy cicatrix.

Med. Gazette, Dec. 20, 1839, *and British and Medical Review, April,* 1 .

[We also add the opinion of Mr. Phillips, surgeon to the Marylebone Infirmary.]

Some years ago, Davat proposed that veins should be obliterated by passing needles under them, and twisting threads tightly under the needles. The operation has been variously modified by Velpeau and others, and is, in my opinion, a successful operation. It has been performed very frequently, and I know of only two accidents, and they happened in persons whose general health was bad. The mode in which I perform the operation is to choose a large varicosed trunk, to pass one or two needles under it; if the latter, I leave an interval of an inch or more between them. I then twist a ligature around, not tight enough to strangulate the tissues, and cause an ulcer, but merely tight enough to prevent the blood from circulating. At the end of six, seven, or eight days, I remove the ligature, and I am mainly guided as to the time of the needles becoming loose, by a little purulent oozing taking place around them. At first, the portion of the vein below the ligature is distended, but at the end of three, four, or five days, this is materially lessened, a coagulum is formed, and the vein feels firm. If two needles be inserted a certain quantity of blood is included between them; and when this feels quite firm, we may safely remove the needles.

Mr. Phillips' Lectures.—Medical Gazette, May 1, 1840, *p.* 211.

53.—TREATMENT OF STRICTURE.

By Bransby Cooper, Esq., F.R.S., Surgeon to Guy's Hospital.

(Abridged from Guy's Hospital Reports.)

[Mr. Cooper commences his paper by stating that strictures have usually been divided into permanent and spasmodic. The doctrine of spasmodic stricture, however, he states, "has its sole origin in the hypothesis that the urethra is partially composed of muscular fibres of which there is no evidence." On this point, however, many eminent surgeons disagree, and among the rest, Sir B. Brodie, who says in one of his lectures, "this leads me to the division of spasmodic and permanent stricture. I am aware that the existence of the former has been doubted, but I have yet to learn on what grounds."

In speaking of the treatment of stricture, Mr. Cooper says:]

That something more is to be thought of than the removal of the mere obstructoin in the urethra. It will generally be found that the mechanical application of instruments will contribute but little towards a radical cure, unless combined with the judicious exhibition of constitutional remedies. Strictures of recent date may always be cured by gentle means, and frequently by constitutional remedies alone; and even when they have reached the state of permanent obstruction to the passage of the urine, their cure may be effected without the application of force in the passing of instruments. In the cure of stricture by the use of the bougie, the object, in my opinion, ought not to be, to force the instrument through the obstruction, but to press it upon it, or into its substance, where the nature of the latter admits of it,

so as to alter the action going on in it, to induce inflammation, softening-down, and removal by absorption; in short, to employ the instrument "*arte non vi*," as was recommended by the great Dupuytren. Of course, such general remedies should be exhibited at the same time as appear likely to conduce to the removal of the obstruction. Where the stricture is irritable, as is indicated by its tendency to bleed, and by the peculiar diathesis of the patient, recourse should be had to opiates, the warm bath, and caustic bougies. In cases where a disposition to spasm is observed, bleeding, opium, and belladonna injection will be found useful. Where the stricture, from its thickness, resists the gentle application of bougies, I have been very successful in rendering it permeable by injecting warm water into the urethra from a long canula, to which a syringe is attached; and by careful, continued, and gentle pressure with this instrument, I have almost invariably succeeded in effecting a radical cure. In cases of irritable stricture, sedatives should be administered to allay the constitutional irritation; leeches may be applied to the perinæum, as also belladonna fomentations, and the *gentle* use of the bougie may be recommended; but should the application of this be followed by bleeding and great pain, a very small piece of potassa fusa may be passed down to the stricture, and will be found to be an almost infallible remedy for the symptoms of irritability. In cases of this kind force should never be used; for it is frequently destructive of the organization of the urethra, and is sometimes fatal to the patient.

The forcible introduction of a catheter or sound into the bladder is only justifiable in a few cases; and never where it cannot be effected without great violence, and without risk of laceration. Where the patient presents severe symptoms of retention, requiring immediate relief, such as great distension of the bladder, great constitutional irritation, and violent pain, an attempt should be made to pass a catheter; and if this instrument can be brought to a right angle to the position of the recumbent patient, and then, and not till then, becomes checked in its progress to the bladder, it is plain that the obstruction is situated at the membranous part of the urethra, where the operator may safely use force, if he apply it judiciously, and by depressing the handle of the instrument: for the risk which would be incurred in other portions of the urethra, by such a proceeding is here in a great measure precluded by this portion of the canal being firmly connected to the surrounding parts of the deep fascia of the perinæum, and by the instrument itself being here guided and protected in its course by the ossa pubis.

But even in these cases, it is impossible to describe the *degree* of force which it is proper to resort to: language is inadequate to express the infinitely various exigences of particular cases; the extent to which force should be carried can only be prescribed by the experience and tact of a practised surgeon, who has a perfect knowledge of the anatomy of the parts. Some surgeons would in some cases recommend force sufficient to thrust the instrument into the bladder; but I am confident that this is a bad practice, and that it is much safer to cut down upon the membranous portion of the urethra than to risk the laceration of the canal, the perforation of the prostate gland, or the forcing of the instrument into the rectum; for all these are casualties to which violent treaters of stricture are liable; and I have known them to occur frequently. A stricture lacerated by this operation is, moreover, almost certain to recur; nay, to become more impervious than ever, as soon as the instrument is no longer regularly introduced; so that not only are the above risks incurred, but no ultimate good is effected.

I hold, then, that where the symptoms are urgent, and the stricture is situated posteriorly to the deep fascia of the perinæum, force may be employed with propriety; but that where the stricture is at the bulb, though the symptoms are not more severe, an operation should be performed. In such cases as I have described, however, force, as it has been before observ-

ed, should only be used to the degree which the experience of the surgeon forbids him to exceed: where it remains without effect, and delay is inadmissible, warm baths, enemata, bleeding or opium with small doses of tartarized antimony, may be tried as constitutional remedies, together with such local means as injection of solution of belladonna, or friction with mercurial or iodine ointment. Where symptoms are urgent, and the surgeon, even after these pharmaceutical remedies, again attempts in vain to pass the catheter—always recollecting that much less force should be employed where the stricture is situated anteriorly to the membranous portion than in strictures of that region itself—he should immediately propose the operation of opening the membranous portion of the urethra.

[Mr. Cooper then proceeds to describe the way in which the surgeon is to cut down upon the urethra; which is to be done by "an incision of about two inches in length made in the course of the raphe of the perinæum, dividing the superficial fascia." But although the surgeon may by this means relieve his patient, by introducing the female catheter from the incision into the bladder, yet he will not produce a permanent cure, and therefore,]

The question now arises, in what manner a complete cure is to be effected. This depends upon the situation of the stricture. If, as is usually the case, it is behind the scrotum, the following means should be employed:—The urine having been drawn off, as described, through a female catheter, a male catheter should be passed through the penis down to the stricture: its point should then be felt for, with the finger, in the incision which has been made in the perinæum; and will be perceptible through the thickness of the stricture, the distance between it and the finger being, of course, the depth of the adventitious growth which constitutes the stricture. This must next be divided by the knife; and the male catheter may then be passed on into the bladder, through the opening which had been made for the introduction of the female catheter. The instrument is afterwards to be kept in the bladder, and the patient put to bed. I decidedly recommend that the catheter should be left in the bladder, though this practice has been condemned; for without it, the divided stricture would certainly close again, and become more permanently firm than ever, the urine would be extravasated into the perinæum, and the patient would be subjected to those additional sources of irritation if nature did not convert the perinæal opening into a permanent fistulous passage, which is sometimes effected by the formation of a new mucous lining, admitting the passage of the urine with impunity. Where the stricture is situated in the penis anteriorly to the scrotum, it is not safe to divide it with a knife, from the difficulty of afterwards closing the wound; and therefore it is better, in that case, only to draw off the urine through an incision in the membranous part of the urethra, by means of the female catheter, and to treat the stricture afterwards, by passing bougies, in the same way as where immediate relief is not required.

Guy's Hospital Reports, April, 1840, *p.* 74.

54.—NEW PREPARATION FROM THE PIPER CUBEBA.

By W. H. Judd, Esq., M.R.C.S., Secretary of the Royal Medico-Botanical Society.

(Abridged from the Royal Med. Bot. Transactions.)

Lately, an extract has been prepared from this spice by Mr. Toller, and he did me the favour to furnish a liberal quantity, to enable me to ascertain, by its effects in practice, its real medicinal merits and advantages over the common forms in use. The extract as prepared by Mr. T., appears to me

to retain that resinous part which (according to Vauquelin), resembles a similar efficacious part that abounds in copaiba. For this extractum cubebæ, when taken into the stomach in 15 grain doses, occasions an aromatic warmth in that viscus, a sense of coldness in the fauces, urethra. and rectum, similar to that produced by peppermint, a little quickness of pulse, a diuretic effect on the kidneys, a peculiar smell in the urine, and a rapid diminution in the discharge from the urethra. These are proofs enough, I take it, of its fully retaining, in this form of extract, the active curative qualities found in the spice, and to show that, from this extract, they arrive at the urethra little altered by the action of digestion, or by passing through the circulation and kidneys; I have merely to state, that a single dose of five grains in a healthy person, will, in two hours, impart to the urine a peculiar well-known odour, and that continued doses will impress the urethra with a cooling sensation, and in a few days, arrest its diseased secretion. In short, it appears to possess all the properties that are known to exist in copaiba, turpentine, and this class of remedies.

[Mr. Judd then goes on to describe the different stages of gonorrhœa; first, when the patient feels a peculiar irritation resembling a "worm creeping up the urethra," which ends in a thin, colourless discharge; secondly, when the discharge becomes thick and yellow, and the scalding in making water increases considerably; thirdly, when the case assumes the form of a gleet.]

Cubebs will always be found capable of lessening or removing the very first issue of discharge, and the irritation accompanying it, whilst the former is thin, and before the inflammation in the urethra has become sufficiently great to induce the formation of puriform fluid. If cubebs be taken but an hour later, they only serve to aggravate the disease in its second stage.

Cubebs again, are highly beneficial when the discharge is great in quantity, but thin and transparent; and therefore, in the third stage, they often act as a charm, and effect a cure in a few days.

Cubebs have another invaluable quality, that of being applicable and beneficial to the stages of urethritis in which copaiba aggravates all the symptoms; and lastly, when this remedy has sometimes been found ineffectual in thoroughly removing the discharge, it renders the disease so mild that turpentine and copaiba are then found to be, by it, rendered certain in their curative effect.

[Several cases are related, where the cure was accomplished in a few days. The dose was about fifteen grains of the extract three times a day.]

The process for the preparation is as follows:—The cubebs are exhausted by repeated digestion in alcohol, which readily takes up all the active principles of the pepper, viz., a resin resembling that of copaiba, and a coloured resin, with an almost concrete essential volatile oil. The alcohol is distilled off from these tinctures at a temperature so moderate as not to volatilise the essential oil: when the operation can be conducted no further in this manner, the evaporation must then be carried on in an open vessel by the aid of a water-bath, at a still lower degree of heat: a little finely pulverised Spanish soap should now be added, to prevent the separation of the resin and preserve the extract of an uniform consistence; with careful attention to temperature, it is thus brought to the requisite consistence for forming pills.

Med. Bot. Trans. vol. 1, Pt. 4, p. 29—36.

[We will here place before the reader some interesting remarks on cubebs, made by Mr. Morgan to the Surgical Society of Ireland in January last.]

The extraordinary and conflicting testimony of authors and lecturers on the value of cubebs, in cases of gonorrhœa, were, to say the least, curious; one man extolling the peppers as a specific, while the other never saw a single case cured by their administration. Supposing then, indeed, of which there was no doubt, that the *essential* oil was the active medicinal principle, the problem was easily solved. On looking into the history of the Java pepper, he found that it, like most other vegetable products, was largely adulterated, and shamefully prepared for medicinal use. The London and Liverpool wholesale druggists, who supply the apothecary with the drug, send it chiefly in the state of powder, having previously added a fair proportion of pimenta berries, and Turkish yellow berries (that is the dried fruit of the rhamnus catharticus), and it is much to be feared, also, deprived it of a large proportion of its essential oil. But, taking for granted all was right, no adulteration, no extraction of the oil, its being so kept in the powdered state by the apothecary, the essential oil is rapidly dissipated; and on looking at the cover of the containing jar, the oil is seen largely adhering. Those facts induced him to speak to Mr. Herron, the respected proprietor of our national medical hall, on the subject, and he fully and entirely agreed in the propriety of purchasing a mill, and grinding the whole pepper as the prescription came to his compounding department. The result was most satisfactory. That the recently ground cubebs contain a much greater proportion of essential oil, Mr. Morgan satisfactorily proved by a simple experiment. He procured from different shops in town, samples of powdered cubebs, among them one ground in London late in the past year, as also one recently ground in Mr. Herron's mill. He placed each sample separately in several folds of bibulous paper, and subjected them to pressure. On examining the packets, he found that those had in a powdered state, scarcely soiled the envelopes, while the *recently ground* perfectly saturated all the folds: he considered that the experiment also proved the necessity of dispensing the medicine in stoppered bottles; or, what would answer equally well, and pay the apothecary better, in waxed papers. The thirst for adulteration was so great that they even tampered with the unground pepper; but in that state it was easily discovered. The pimenta berries want the foot stalk, or bilocular, and contains two seeds; the cubebs, one; the rhamnus catharticus, four. To prove the thing practically, Mr. Morgan selected twelve cases of gonorrhœa indiscriminately. He treated six with the recently ground cubebs, and six with the powder had from different shops. He would detain them for a few moments, and mention a case which he considered conclusive on the matter. A gentleman, in June last, contracted a gonorrhœa, and was treated by a physician enjoying a large practice, who dosed him most unmercifully with the ordinary cubebs of the shops for twenty-four days, without the slightest effect. Mr. M. saw him after, and injected him with nitrate of silver effectually. In a few days he went to the country, and became again diseased—was a second time dosed with provincial cubebs, perhaps some years on the shelf, with the same result. He returned to Dublin in December last, and being rather of an amorous disposition, was induced a third time to taste of the forbidden fruit, but the temptation proved unfortunate. He saw him, and much against his will prevailed on him to take cubebs: for he jocosely remarked that nature never intended his stomach for a saw pit. Mr. M. saw them ground, and dispensed in a stoppered bottle. He took them in the usual dose, with six grains of nitrate of potash three times each day; on the fourth day the discharge was considerably lessened, and on the seventh entirely disappeared. It was quite clear idiosyncracy had nothing to do in this case; the inferiority of the medicine, and the total neglect of the preservation of the essential oil, being the cause of the failure in the former administrations. For his own part he preferred giving the essential oil, if he could rely on its purity. The dose being small, and when given in the form of emulsion, is both seemly to the eye,

agreeable to the taste, and less likely to cause derangement of the stomach and bowels.

Sir James Murray bore testimony to the facts put forward by Mr. Morgan, particularly with reference to the use of essential oil. He had lately witnessed a case in which the essential oil proved quite superior to the substance from which it is extracted—he alluded to valerian.

Dublin Medical Press, Feb. 12, 1840, *p.* 112.

46.—TREATMENT OF PERIOSTITIS.

By J. M. Ferrall, Esq., M.R.I.A., First Medical Adviser to St. Vincent's Hospital.

[Mr. Ferrall has tried the three principal modes of treatment usually adopted in this disease, viz.—1st, by incision, 2nd, by mercury, and thirdly, by hydriodate of potass. By the first the cure was completed in twenty-eight days; and by the last in thirteen days: relief was more *immediately* procured by incision, that is, by cutting down upon the bone through the periosteum for the space of about two inches, but the cure was, nevertheless, protracted.

He gives from eight to twenty grains of hydriodate of potass three times a day in the third mode of treatment.]

In comparing the results of different modes of treatment in this painful disease, you have to consider—1st, by which is the pain most speedily relieved—2ndly—which restores the power of using the limb soonest to the patient—and, 3dly, which plan of treatment is attended by the least danger and inconvenience.

As regards the immediate relief of pain, there can be no doubt but incision, where it succeeds, has greatly the advantage of the mercurial treatment. The merit of having insisted on this practice in periostitis is due to Sir Philip Crampton, whose excellent practical paper on this subject you will find in the first volume of the Dublin Hospital Reports. I say, *where it succeeds*, for some of the cases in the essay to which I allude are indicative of its uncertainty, except when the surgeon has an opportunity of employing it in the early stage. In one of his cases, in which incision was followed by immediate relief to the part incised, the disease attacked the periosteum immediately below the point of incision, within a week from the first operation. A new incision was now made to relieve the latest point of attack, and relief followed as before; but before this last wound was healed, an attack of pain, which was only relieved by a nightly dose of opium, occurred in the seat of the original incision. In another of his cases, (that reported by the late Professor Todd) but which was of longer duration, the incision was followed by partial relief, and the patient, a lady, left town, suffering severe pain occasionally afterwards in the country.

The hydriodate of potass is generally capable of controlling the morbid action, and relieving pain in a shorter time than I was prepared to expect. The fifth or sixth dose will, in the majority of instances, enable the patient to sleep; and I have known many instances where the third or fourth dose has produced this effect. I have notes of cases among our out-patients, who sleep the first night, having taken during the morning and day four doses of the salt, and I have never failed in demonstrating to you, by the usual tests, the presence of the medicine in the urine passed the following morning. The purity of the hydriodate, you are aware, is ascertained before any new parcel is used by the apothecary. There is very little difference, therefore, in the period at which the pain may be relieved; and when you consider that the iodine treatment avoids a painful, though brief operation, and is not fol-

lowed by an open sore, I think you would prefer, in your own instance, giving it a previous trial.

The second ground of preference, namely, the earlier period at which the patient can resume his ocupation, is clearly on the side of the iodine, for the case treated by mercury occupied thirty-seven days, that by incision twenty-eight days, and that by the hydriodate of potass thirteen days. In the two latter cases, matter had formed beneath the periosteum, and this circumstance, while it accounts for healing after incision being a few days slower than in the first case of Sir Philip Crampton, gives an additional value to the iodine, for it displays its power over the disease, when even advanced to suppuration, and its capability of curing it in a shorter period.

There is another medicine of great power in subacute and chronic periostitis; this is sarsaparilla. I think Sir Philip Crampton speaks too feebly of its powers in this complaint, and indeed he appears to limit its exhibition to those cases in which periostitis is connected with that cachectic state produced by protracted courses of mercury. In these, he says, it may be given with considerable advantage; but he does not say that it is capable of curing the disease alone. I have given it repeatedly with the effect of removing the pain in a few days, since it was suggested by Sir B. Brodie, a few years ago, in the case of a gentleman who consulted him when attacked in London by this painful malady. In this case there was no mercurial cachexia to give rise to the disease, and here as well as in several other instances, where I did not expect to have an opportunity of superintending the action of iodine, sarsaparilla has completely succeeded in removing the symptoms.

Mr. Ferrall's Clinical Lectures.
Medical Gazette, April 10, 1840, *p.* 917.

57.—ON THE PREEMINENCE OF TOBACCO IN STRANGULATED HERNIA.

By Dr. Jackson, of Philadelphia.

The use of tobacco in hernia, and of tobacco or tartar emetic in dislocations, I have long preferred to those copious effusions of blood formerly, and perhaps still, too much in use. To lose blood sufficient to induce fainting, and to preserve the system in this state till a bone, or a hernia may be reduced, is an expenditure of the vital fluid, a waste of strength, which very many who are not prone to faint, will not regain for months or years. This is particularly the case with old people, but it also applies to the young who are already in a state of debility or of chronic disease, and to those who from idiosyncracy are slow to recover over.

Ice I have repeatedly tried, but never with the advantage of contracting the tumour; nay, it sometimes appeared to increase it both in size and tenderness.

The Russian method, by cups, demanded a trial; hence we have covered the abdomen with half-pint exhausted tumblers, but they proved as useless in practice, as in theory they were unpromising.

The warm bath, and warm fomentations may be tried, but they will hardly succeed in bad cases without the aid of blood-letting. It is true that if the patient is greatly relaxed by the general warm bath, and blood be let while he is yet in the water, a very small loss may suffice; but this may be in most situations a troublesome remedy occasioning too much delay. Time, said Franklin, is money; but in the treatment of hernia, time is not only money to the physician, but life to the patient, as well as honour to the profession of medicine. Tobacco will do all that bleeding can do, however great the inflammation, all that ice, or cups, or belladonna, or any other means can do, that have ever been invented.

We have never used cataplasms of tobacco to the tumour and stomach, but we intend to give them a trial the very first opportunity. We have very frequently used them with great advantage for spasms of the bowels, particularly those of saturnine colic, and we do not see why they should not prove sufficiently powerful in hernia, at least, in those persons who have not become habituated to the continual use of this article. In persons who are very sensible to the impression of tobacco, a cataplasm to the stomach will soon induce emesis and general relaxation.

Deglutition of tobacco smoke we have used with decided advantage. A few years ago, I was called to a patient in the night, who had been suddenly taken with strangulation of an old hernia: the taxis was gently tried but the tumour was too sensible to bear much manipulation. There was no syringe nor means of administering an enema, nor was there any fire in the house, by which a tobacco cataplasm could be quickly made; hence, it instantly came into my mind that he might swallow tobacco smoke as a substitute. He was furnished with a cigar, and desired to make vehement efforts to pass the smoke into his stomach. He soon became sick and puked, his whole frame relaxed, and covered with a cold sweat. The bowel was now very easily reduced, and the free use of volatile spirits both internally and externally, soon restored him.

Whether this method of using tobacco has generally any advantage over the enema, I am not prepared to say. With women, and with those men, too, who are delicate with respect to these obscene operations, it may be preferred, for delicacy ought always to be carefully regarded. I have very frequently used it since for spasms in the bowels, and for hernia; but it has several times entirely failed, owing as I supposed, to the patient's inability to pass a sufficient quantity into the stomach. Those, moreover, who are unfortunately, or, let us say, viciously, accustomed to this poison, are not to be overcome by a small quantity. That smoke can be passed into the stomach by deglutition, I am very certain from my own personal experiments.

Strangulated hernia was of frequent occurrence in my busy and extensive practice, but of all the numerous cases that have occurred to me during twenty-five years in Northumberland and its vicinity, every case was successfully reduced. I have performed the operation in three cases only, and these were in the practice of other physicians; one was successful, and two were lost by previous sphacelation and a subsequent artificial anus. This success with the taxis, I impute entirely to the prompt and powerful aid of tobacco. If it be objected, that it is a dangerous remedy, and that a few patients have been destroyed by it, we reply, that the disease or the operation is far more to be dreaded than the use of tobacco in careful hands. The scientific physician will consider the strength and idiosyncracies of his patient, and use the medicine with prudence. When I contrast this with the ignorant temerity with which the nurses and busy-bodies have often used this article to my knowledge, without measure and yet without detriment, I am fully persuaded that in the hands of skilful, scientific physicians, it ought not to be considered as a dangerous remedy.

American Journal of Medical Sciences, Feb., 1840, *p.* 305.

M. Benoit, in an article in the Bulletin Medical du Midi, quotes two cases illustrative of the utility of a recumbent position, with the feet elevated and the head depressed, in effecting a reduction of strangulated hernia. The first of these occurred in the practice of a provincial surgeon. The patient had been suffering from strangulated hernia, which resisted various means employed for its reduction, and it was resolved to divide the stricture. Whilst the surgeon was arranging in an adjoining room the instruments for the operation, a cry of joy from the patient soon brought the surgeon to his side. It appeared that in hopes of alleviating his sufferings, the patient, as he lay

on his bed, had elevated and supported his feet against the wall, thus forming an inclined plane of his body, of which his feet were the highest and his head the lowest points. He had not been in this position many minutes when he perceived a rumbling in his abdomen, and the hernia was suddenly reduced.

The second case was one of strangulated inguinal hernia of the left side. M. B. tried the taxis, refrigerants, enemata, &c., without success. The symptoms being urgent, another physician was sent for. While awaiting his arrival, M. B. recollected the case just quoted, and placing the patient across his bed, raised his feet against the wall, with his head depressed, and in a short time the reduction took place.

Our able correspondent, Dr. S. Jackson, formerly of Northumberland, twelve or thirteen years ago, resorted to the same position as a means of reducing strangulated hernia in one case, and with equally happy results.

Ibid, p. 463.

58.—REMARKS ON SYPHILIS.

By R. CARMICHAEL, Esq., of Dublin.

[That accomplished surgeon, Mr. Carmichael, of Dublin, differs from M. Ricord, in many of his views respecting syphilis, and as it would be impossible to convey his meaning to our readers so well as in his own words and style, we extract the following observations from his lectures now being published in the Dublin Medical Press. After stating that the experiments of Bell, Evans, and Ricord, all support the doctrine of a plurality of poisons, he says:]

I would not on any account, have it imagined, that I would wish to undervalue M. Ricord's observations, and undoubted talents for research. His experiments of inoculation with the matter of gonorrhœa and balanite (the latter we generally call spurious, or external gonorrhœa), fifty-five in number, evince his indefatigable industry: but I could have wished that he had confined these experiments to cases only which afforded thin ichorous matter for inoculation. Out of the entire number, there are only six recent cases, that is, cases which came under his observation within a week after the appearance of the discharge; and of these six it is only stated that in one instance was the discharge of a thin (*saniex*) nature.*

* [M. Ricord's process of inoculation to ascertain whether or not the sores presented are truly syphilitic, is now so well known to the profession, that we need hardly take up space in explaining it. In all doubtful cases, the patient is inoculated from his own sore, and if a syphilitic ulcer is produced, similar to the one from which the matter is taken, it is considered to be genuine syphilis and treated accordingly. But instead of allowing this second sore to proceed, M. Ricord destroys the part inoculated, on the third or fourth day, before it has proceeded far enough to produce bad effects. By long experience, M. Ricord knows, even on the second or third day, what would be the effects of his inoculation, and thus destroys the part in time, as unpleasant effects might take place were the second sore to become intractable, as has occasionally happened. In some interesting letters in the Lancet on this subject, Mr. Acton arrives at the following conclusions:]

1. The secretion of chancre, or of a primary syphilitic sore, during its ulcerating period, produces, when inoculated, a series of characteristic phenomena, as constant as they are regular.
2. No other secretion will produce similar effects.
3. Inoculation, then, distinguishes chancres from all other sores.
4. When the secretion of a sore (be its physical characters those of simple chancre, benign or malignant phagedena, &c.), produces a pustule, and subsequently a chancre, the surgeon may be convinced that it was itself produced by the contact of syphilitic virus notwithstanding any other evidence to the contrary.
5. The surgeon may satisfy himself usually as to the nature of the pustule previous to the third day; if then cauterised, there is no fear of its becoming an intractable sore.

London Lancet, Jan. 4 1840, *p.* 535

I give, however, M. Ricord full credit for the honesty of his statements; and, in his avowal that in making his experiments he had no preconceived notions to support. Finding that in the great majority of cases, the inoculation of gonorrhœal matter was not attended with any result, because it had, according to my opinion, become thick and purulent, I am not surprised that he should at length come to the conclusion, that it did not possess the power, under any circumstance, of infecting the skin, and of thus producing venereal ulceration. But from the honesty displayed in the statement of his own experiments, thus militating against his opinions in the instances adduced, where the virus was taken from recent gonorrhœa, I make no doubt but that he will reconsider the subject, and make use of the ample opportunities he possesses of repeating these experiments with gonorrhœal matter, only during the first or inflammatory stage while it is yet *thin, ichorous, and most infectious.*

If the same virus was not capable of producing both gonorrhœa and ulcers, how can we explain the every day occurrence of men acquiring both affections from the one impure connexion, of which he himself has given numerous instances? It would be travelling a little too far out of the road of common sense to suppose that in every such instance the infecting person communicated two poisons, the one producing ulcers, and the other gonorrhœa. How will he himself account for the fungous ulcers he finds on the cervix uteri, so frequently arising from gonorrhœa, that he makes it a rule never to discharge a woman from the hospital until he has examined this part of her frame? And yet this fungous ulcer exactly corresponds with the second stage of the ulcer called by me the simple primary ulcer which occasions a papular eruption; indeed, he inadvertently acknowledges this power in gonorrhœal matter to produce ulceration by the advice he gives at page 678, not to apply leeches to the neck of the uterus of a woman affected with gonorrhœa for fear every leech bite should turn into a chancre. He certainly adds that this advice is given because there is a chance of virulent ulcers existing in the womb, but this is a very unlikely contingency.

I perfectly agree with M. Ricord, that the matter of gonorrhœa, will not produce chancre, by which I mean the chancre with an indurated base, so well described by Hunter, and which produces a scaly eruption; but if he means by the term chancre, any venereal primary sore, I totally disagree with him, as I have afforded sufficient proof, even from his own experiments, that it is capable of producing mild primary ulcers without induration or phagedena, and to this I may add, that when constitutional symptoms arise, they appear in the form of the papular eruption. But I am supported still further in these views, by other experiments he details at p. 109, &c., which he was induced to perform on some galley slaves under his charge in 1794, in consequence of Benjamin Bell's work on the venereal happening to fall into his hands. Three sound young men, he informs us, were selected for the experiment, and inoculated by placing threads soaked in gonorrhœal matter between the glans and prepuce; one of these men had trifling ulcers, which healed under the most simple dressings. But the two others did not escape so easily, for the ulcers caused by the inoculation were slow in healing, for it seems these individuals had a *scorbutic tendency*, although, in the preceding paragraph, we are told that the three men selected were "*bien sains.*" In consequence of this tendency to scurvy, although there were no symptoms of that disease present, it was inferred, that the ulcers of inoculation were obstinate in healing, and resisted all local measures, until acids, combined with stimulants were exhibited, and one of them who had a sanious fungous ulcer was affected with pains, which ran through his entire frame.

Several other experiments of the same description are detailed in p. 111, &c. In every instance ulcers followed the inoculation of the gonorrhœal virus, but when obstinate and followed or accompanied by eruption and pains,

were attributed, not to the venereal poison, but either to "scrofules bien prononcees," or to obstructions "dans le bas-ventre." Six individuals had "une constitution faible, irritable cochochyme," one was "ne de parents affliges de la goutte," while another was subject to hæmorrhoids, and the "rebellious ulcer" caused by inoculation would not heal until there was a return of the hæmorrhoidal discharge. But I need not multiply farther proofs of the facility with which even men of experience will not see the most obvious facts when their vision is obscured or obstructed by a veil of preconceived notions or prejudices.

M. Ricord's third section consists of experiments of inoculation made with the matter of bubo—sixty-nine experiments were performed, in twenty-six of which it was successful, and in the remaining forty-three was not attended by any result. Some curious and interesting facts were developed by these experiments. It was ascertained that the nearer the matter was taken from the surface of the affected gland, the more likely was the infection to succeed, and on the contrary, the matter furnished by the parts exterior to the gland was not infectious.

The fourth section of M. Ricord's work consists of experiments of inoculation with the matter of constitutional ulcers, in all of which (twenty-three) the results were negative, that is, the matter did not produce any effect. Several of the persons from whom the matter was taken, were, however, altogether unfit subjects for this purpose: for instance, the matter in one patient was taken from an abscess near the root of the penis, most probably not venereal, in another from a doubtful pustule of the umbilicus, in a third, from a cancerous ulcer of the cervix, uteri, and in a fourth, from gonorrhœal ophthalmia—a primary and not a secondary affection. In seven instances the matter was taken from condylomata, or "tubercules muqueux," in the fossa of the nates, or on the inside of the upper part of the thighs.

The negative result of the remainder of these experiments with the matter of constitutional ulcers, tends strongly to support Hunter's doctrine, that the matter they produce is not infectious, and it agrees with my own opinion that venereal diseases every day become milder, until they at length yield to the powers of the constitution. But notwithstanding these views, backed by M. Ricord's experiments, and those tried by Hunter, which prove that the inoculation of the blood of an infected person will not communicate the disease, how does it happen, as even in one of the instances detailed by M. Ricord, that a diseased infant will infect the breast of a sound woman? The ulcers in the mouth of the infant are not primary but secondary, as they are derived from the constitutional disease of infected parents: and a diseased nurse, vice versa, with ulcerated nipples, will communicate the disease to a sound infant. I have met with instances of young married women above suspicion, who were affected with constitutional symptoms, and who, on the minutest inquiry, I could not learn, ever had any primary venereal affection. At the same time their husbands, though equally free from primary, at the time of their marriage had on them secondary symptoms, in the form of eruptions or ulceration of the throat. From these circumstances, I cannot but conclude, that the matter of constitutional eruptions *may* be contagious, and this opinion has not been removed by M. Ricord's experiments: for as the virus of small-pox and cow-pox loses its infectious properties as it becomes purulent, so in the same manner, we may, from analogy, conclude that venereal eruptions are infectious while their contents are thin and serous, but that they lose this property as soon as *they* become purulent, and there is still far less chance of their retaining any portion of their specific poison when they spread into ulcers; therefore, I should hesitate to conclude that secondary symptoms are altogether non-contagious, until experiments of inoculation are made with the serous fluid of venereal eruptions, or whatever their contents may be at their first appearance.

No experiments have yet been instituted for the purpose of ascertaining in an accurate manner, whether there is only one or a plurality of poisons. Had I made experiments with this view, they would have been looked on with a very suspicious eye, knowing my prepossessions in favour of the latter doctrine. But when I am enabled to support my opinions by the experiments of those who have neither these prepossessions, or are actually opposed to them, the evidence thus elicited may be considered most satisfactory. Now, from the experiments of Bell and Ricord, I consider that Hunter's doctrine of the same poison producing both chancre and gonorrhœa to be completely negatived. I also consider from the experiments of Ricord himself, (though he does not come to the conclusion) that it has been proved, the matter which produces gonorrhœa may also occasion ulcers, a position which is supported by the accurate observations of Evans, who traced in a most satisfactory manner, in numerous instances, *the mild species of primary ulcer, which he calls venerola vulgaris, to gonorrhœal infection.* These observations of Evans, most unequivocally support my doctrine, that the same virus produces gonorrhœa (both urethral and external) and a mild form of primary ulcer, without induration or phagedena. Now this position being admitted, and from the evidence adduced, I do not see how it can be denied, it is equally demonstrative, that these primary forms produce the papular eruption with the group of constitutional symptoms, which I have described as its concomitants.

Dublin Medical Press, April 1, 1840, *p.* 217.

[Mr. C. then goes on to say that Hunter considered the views of chancre and gonorrhœa to be identical; Bell, Evans, and Ricord considered these venereal affections to arise from distinct poisons.]

But, says he, the experiments of all, in my opinion, *prove* the existence of at least two poisons, and in the course of this lecture I shall adduce some other experiments of M. Ricord to show, contrary to any inductions of the experimenter, that there is at least a third venereal poison. But in a practical point of view, whether we admit one, two, four, or any poisons is a matter of total indifference, provided we make ourselves acquainted with the grouping of symptoms, or of the different forms of the venereal disease, if you are *still* advocates for the old belief that all the varieties of this malady spring from one poison.

I shall now call your attention to that particular form which produces an eruption of pustules, that terminate in mild superficial ulcers, which, unlike those of the phagedenic constitutional disease, evince an early disposition to heal. The primary ulcer which occasions this eruption, has a smooth surface and elevated edges. It does not, in the second or third week, show a raised fungous surface, or any appearance of granulations, like the mild primary ulcer, which occasions a papular eruption. I have placed it between the latter form, and the phagedenic, as being a *juste milieu* between the mildness of the one, and the severity of the other; but whether it is caused by a distinct poison, or that its peculiar characters should be owing to other circumstances, must remain *sub judice*, until experiments of inoculation, judiciously and fairly instituted, establish or annul its claims to this distinction. It is, however, both in the character of its primary as well as secondary symptoms more allied to the phagedenic than to the papular form of venereal disease.

In order to avoid the *questio vexata*, of whether there is one or more venereal poisons, and not occasion umbrage by opposing the prepossessions of any person, I shall in future try to speak of those congeries or groups of symptoms under the term *form* with the name of the eruption with which they are connected, adjectively appended. Thus we shall have the papular,

pustular, phagedenic, and scaly forms of venereal disease. But, instead of *forms*, if you agree with me, you will call them *diseases*.

I shall begin with the papular form of venereal disease, which comprises the great majority, perhaps nine-tenths of the cases which occur in this country. The primary symptoms are a mild form of ulcer, without induration or phagedena, and a gonorrhœa virulenta. Under the latter term, I not only include this disease, as it affects the urethra in both sexes, but the vagina in the one, and the glans penis, and the interior surface of the prepuce in the other. The latter affection, in the male sex, is usually called spurious, or external gonorrhœa, and incorrectly, chancrous excoriation. These several affections are frequently found in the same individual, and contracted by the same sexual connexion; from which circumstance alone, independently of the experiments of inoculation of M. Ricord, and the accurate observations and experiments of Mr. Evans, already noticed, we may safely infer that the same virus is capable of producing both ulceration and gonorrhœa, although the patient may, at the time he comes under our observation, exhibit but one of these affections.

The ulcer commences in the form of a pimple or vesicle, with some surrounding inflammation: the matter contained in the vesicle gradually becomes more clouded or opaque, ulceration then takes place, when the disease is in general for the first time discovered by the patient, in consequence of the itching or stinging sensation occasioned by the ulcer. The duration of such a pimple or vesicle before ulceration, is more likely to be learned from experiments of inoculation, than from any information to be obtained from patients. According to Ricord, a period of six days will elapse from the time of infection to that of ulceration, during which time there is first a redness, then a pimple with a red areola, then a vesicle containing a liquid more or less turbid, which at length becomes purulent; a scab then forms, on the separation of which an ulcer is exposed. The ulcer is excavated, and secretes a thin ichorous matter during the first eight or ten days, which marks the period of infection, the matter then gradually becomes purulent, which marks the period of reparation, and the decline of the specific powers of the poison. It then becomes daily less excavated, and at length its surface rises above that of the surrounding integument, presenting a smooth fungous appearance, without induration, by which it is distinguished from true chancre, or even fullness, except it has been irritated by the use of stimulating applications. Neither are there raised or elevated edges, by which it may be distinguished from the primary ulcer which occasions a pustular eruption; nor does it present a phagedenic or sloughing surface—so that, at the period when ulcers assume their specific characters in the second week from their commencement, it may be known, *positively*, by its smooth, mild, fungous-looking surface, and *negatively*, by the absence of the characteristics of the other forms of primary venereal ulcers.

If we wish to experimentalize with the virus of this form of disease, we should take the matter for inoculation while the ulcer is still in its excavated and progressive state, before the period of reparation, the discharge not having as yet become purulent. This is the period also, in which we may have a good prospect of extinguishing the disease at once, by cauterizing the ulcer with nitrate of silver; with which view it will not be sufficient to touch the sore slightly with the escharotic—it ought to be applied effectually, and to the very bottom of the ulcer. The mode which I usually pursue for this purpose, is to apply the powdered nitrate of silver to the ulcer on the end of a moistened probe. M. Ricord, it seems, felt always certain of stopping the progress of an ulcer caused by inoculation, in cauterizing it, even at the fifth or sixth day after its commencement. A fact, coming from such high authority, on this part of our subject, ought to assure us of the advantage likely to arise from the practice I have recommended.

I constantly have recourse to it, as long as the ulcer is excavated, and continues to secrete a thin ichorous, and therefore a poisonous matter. But when the discharge becomes purulent, and the surface of the ulcer is smooth, raised, and fungous, I prefer, above all other applications, a solution of the nitrate of silver, in the proportion of from one to three grains to an ounce of distilled water—under which application, with rest, moderate diet, and aperient medicines, to which I usually add small doses of tartrate of antimony, these ulcers are found to heal in a period of time scarcely to be credited by those who trust to mercury alone for the cure; and, I shall venture to add, with a far less proportion of secondary symptoms than fall to the lot of the decided mercurialist to experience. I do not consider it necessary to exhibit mercury for these ulcers, because I find, from very ample experience, that it is not capable of preventing the accession of constitutional symptoms of this form of disease, and certainly it would appear inconsistent to order a medicine that does not even expedite the healing of the sores in question, with the view of preventing those secondary symptoms, for which I would not exhibit it, were they even to occur.

When external or spurious gonorrhœa exists, which is seen to affect the glans and internal surface of the prepuce not uniformly, but in excoriated patches, brushing over the parts thus affected lightly with lunar caustic in substance, will act on the disease like a charm, and cause it in general to disappear in a few days.

If one application of the nitrate of silver does not succeed, a second, or third, at most, will; which, with the application of dry lint, and exhibition of some mild aperient, are all that is necessary to cure this complaint. Lint soaked in a solution of nitrate of silver, three grains to the ounce of distilled water, laid between the prepuce and glans and changed twice or thrice a day, may answer equally well, but it is not so expeditious in removing this affection as the application of the nitrate in substance, and dry lint afterwards.

Venereal primary ulcers of every description are probably more likely to be found on, or in the immediate neighbourhood of the frenum, than on any other part of the penis. When on the frenum, nothing will stop their progress until they ulcerate through it; I am, therefore, in the habit of anticipating this slow process of nature, which will inevitably occur, by making a free division of the frenum with a sharp-pointed bistoury, and on the following day, applying the nitrate of silver freely to this divided surface, as well as to the entire of the ulcer, by which means the duration of the patient's confinement is usually curtailed many weeks.

Ibid., April, 15, 1840, *p.* 549.

[In a subsequent lecture Mr. Carmichael refers more particularly to the mercurial treatment. He says:]

I shall now conclude by a brief summary of the symptoms and stages of all forms of venereal which I conceive require the employment of mercury:—

1st. In cases of the simple primary ulcer, if the papular venereal disease do not yield to rest, the antiphlogistic treatment and astringent washes, after the third or fourth week I usually give mercury in alterative doses, in the same manner, and with the same views as I would exhibit it for any indolent ulcer which is not venereal; but this is seldom or never necessary.

2d. When the papular and pustular eruptions become scaly, and obviously on the decline, in general, not sooner than the fourth or fifth week, if not yielding satisfactorily to sarsaparilla, antimonials, or hydriodate of potash, I exhibit mercury in alterative doses, combined with sarsaparilla.

3d. Whenever iritis occurs, I give mercury so as to excite its full effects upon the system.

4th. When nodes arise, which usually commence with inflammation of

the periosteum, if iodine fails, I also give mercury so as to produce its full effects; and, in the last two instances, it is exhibited on the principle that there is no process so powerful in checking periostitis or inflammation of any membranous part, as mercurialization of the system.

5th. In the phagedenic form of venereal disease, I may safely say that I have almost always found, sooner or later, the exhibition of mercury prove to be injurious. For primary ulcers invariably so, and the same may be observed while the eruption continues to present the form of rupia or tubercles. But after the disease has existed for months or years, when each succeeding crop of eruption has a tendency to change its character into that of scaly tubercles, alterative doses of mercury may, perhaps, be of use, yet, of this I am very doubtful, for I have seen, even in this exhausted state of the disease, more relapses than perfect cures by mercury, exhibited either in full or alterative doses, under the most guarded and judicious mode of administering that medicine. In such cases I place much more reliance upon the administration of hydriodate of potash in conjunction with sarsaparilla. When the presence of nodes indicates the utility of mercury, I restrain myself from its exhibition should rupia also be present, from experience of its injurious effects on the general disease, under this form of eruption; and even when extensive ulceration of the fauces, engaging the velum, tonsils, and entire pharynx, seems to threaten the life of the patient, I would try every method likely to succeed, before I should have recourse even to mercurial fumigations, for fear of mercurialising the entire system although well aware of the benefit often arising from their use as a local remedy. I have found mercury, in every stage of the phagedenic venereal disease, to be a most deceitful and destructive drug; for, although symptoms may amend, for a brief period, under its use, and flatter both patient and practitioner that a speedy cure is at hand, yet, almost to a certainty, new symptoms will arise to disappoint these sanguine expectations. If mercury is at all admissible for this form of venereal disease, it is, as before observed, when the malady is obviously on the decline, and the eruption has assumed the appearance of scaly tubercles or blotches. This observation equally applies to the pustular form of venereal disease.

6th. For the true Hunterian chancre, with hardened edge and base, and for the scaly eruption, either lepra or psoraisis which attends it, as well as the deep excavated ulcer of the tonsils, nodes, and other symptoms belonging to this form of disease, mercury in full doses may be esteemed a certain and expeditious remedy; and the reason of the necessity of exhibiting mercury seems to be that both in its primary and secondary symptoms there is but little or no accompanying inflammation or fever as in the other forms of those maladies.

From this statement of my views, you perceive that it is only in cases of the true Hunterian chancre, with hardened edge and base, that I prescribe mercury with the intention of preventing the accession of secondary symptoms; but in consequence of the infrequency of this primary ulcer, it is seldom required in my practice. I cannot, therefore, from my own experience, advance any facts calculated to answer the question—whether mercury has or has not the power of preventing the accession of constitutional symptoms in all the forms of venereal, except in one, the scaly, and respecting this form, I can state positively that it does possess this preventive power; for I have seen secondary symptoms so frequently follow the Hunterian chancre in which the induration was not removed by mercury, that I have no doubt of the truth of my affirmation. But that mercury does not possess the same power of prevention as in the other forms of venereal, I infer from general reasoning; for as it is incapable of curing these forms, we must naturally conclude that it cannot prevent the accession of their constitutional symptoms. It would, however, be expecting too much to hope that practi-

tioners in general will relinquish their early prepossessions in favour of the preventive powers of mercury and follow my example, by only exhibiting it in cases of indurated chancre; and although I might cite, in support of my views, numerous incontrovertible testimonies from military practice (by which, for obvious reasons, this question must be finally decided), I shall content myself at present by placing against each other the opinions of two practitioners who have applied themselves to the subject. In favour of the preventive power M. Bacot says, that secondary symptoms occur in the proportion of at least one in ten in those cases where no mercury is used, while on the contrary, the proportion of such cases is only one to seventy-five where that remedy has been employed." Now, against this opinion, so preremptorily given on a question still *sub-judice*, I shall cite the experience of Doctor Fricke, surgeon to the Great General Hospital of Hamburgh, as reported by Dr. Graves in his lecture, inserted in the Medical Gazette for January, 1839: "With regard to the certainty of cure, as far as the mercurial treatment is concerned, we must say, with many of our unprejudiced colleagues, that we are convinced by bitter experience that syphilis very often returned in the secondary form, *after the most cautious use of mercury, the most careful selection of the preparation, the strictest attention to diet, and a proper observation of precautionary measures.*

Ibid., June, 1840, *p.* 404.

We should also recollect, as bearing on the question of the propriety of exhibiting mercury with the view of preventing the accession of secondary symptoms, that in the report of the Army Medical Board, in 1819, although a much larger proportion of those non-mercurially treated had secondary symptoms than those treated with mercury, yet the report states that in the majority of those instances there were good grounds for believing that *the constitutional symptoms* "*were more severe and more intractable than when mercury had not been used for the primary sore; and that, on the contrary, every man treated without mercury had been fit for immediate military duty on dismissal from the hospital;*" that the averaged period for the cure of primary symptoms, *without* mercury, was twenty-one days; and *with* it, thirty-three days. So that, even on this early report, the advantages resulting from a smaller proportion of secondary symptoms under the influence of mercury is more than counterbalanced by the shorter period required for the treatment of primary symptoms, the unimpaired health of the patients, and the mildness of the secondary symptoms, when they did occur, advantages which result from the non-mercurial treatment.

Various reports have been from time to time published both from civil and military surgeons, which would induce us to believe that mercury has not the power attributed to it (except in the true Hunterian chancre), of preventing the accession of secondary symptoms; thus Dr. Green, in his excellent paper on the treatment of syphilis without mercury, inserted in the 2d. vol. of the Transactions of the Provincial Medical and Surgical Association, states that out of 100 cases treated without mercury, constitutional affections followed in nine instances only, and that these were remarkably mild. He, therefore, "*thinks its use in primary symptoms should be given up altogether, at least until there appears some indications for its employment.*"

MIDWIFERY.

MIDWIFERY.

59.—REMARKS ON THE ERGOT OF RYE

By JOHN PATTERSON, ESQ., of Aberdeen.

I have found the Secale cornutum, if properly administered, to be a most useful medicine: at the same time, I shall always consider it a dangerous one, so long as its uninterupted action on the uterus cannot be governed by any given dose of the medicine. In the great majority of lingering labours, when there is no rigidity of the os uteri, and when dilated, I would say, to nearly the size of a crown piece, I consider the ergot more to be depended on, as to its particular effects on the uterus than almost any other specific in the Pharmacopœia. I have never seen injury arise to the mother from the largest doses; but its effects on the child do not warrant me in bestowing on it the same encomiums to which some medical writers on the subject think it entitled. In eight cases where I used the medicine in half drachm doses, and closely watched its action, it fully answered my expectations, by acting strongly in less than five minutes after it was administered; and I will venture to say that, if properly used, given in proper doses, and the medicine fresh, (which it seldom is,) it never will disappoint the medical attendant as to its stimulating effects. In every one of these cases, there was in the symptoms produced a uniformity very surprising;—all the patients expressed their feelings in the same language, viz., that they never felt themselves in a similar state as their pains were never away. Could the action, therefore, of this medicine be in any way regulated by the accoucheur I am satisfied that, to a great extent, it would supersede the use of instruments; but until that can be accomplished, it has that great disadvantage, and will always require to be given with extreme caution. Out of those eight cases in which I used the ergot, I lost three children, than which no stronger evidence need be adduced of its extreme danger. In the works which I have read in reference to this medicine, I have been struck at finding so little allusion made to its bad effects upon the child—very few instances being recorded of its fatal effects. In the three cases alluded to, I satisfied myself before its administration, that the children were not only alive, but apparently strong and healthy; but so soon as the action of the medicine commenced, these impressions gradually became less sensible to me and the mother. On these three occasions I regretted very much that no inspection was permitted. In two of them in particular, the conjunctiva was literally gorged with blood; and I have little or no doubt that death was occasioned by the uninterrupted pressure of the uterus upon the brain. In that way, and by premature separation of the placenta before birth, produced by the same action, I doubt very much if more deaths are not occasioned than by the use of instruments; at least my experience leads me to that conclusion.

I have already mentioned, that I have not in a single instance found that injury has been done to the mother, thus giving the ergot, in one respect, a great advantage over the forceps; and it is a question which time and expe-

rience alone can decide, how far the one is to be preferred to the other. Like many useful and powerful agents, to be eminently useful, it only requires to be kept under control; and until some regulating power can be applied to its incessant action, though with me a great favourite in certain cases, I must always consider it both as uncertain and dangerous. I have observed that the separation of the placenta before the birth of the child, may in some cases be the cause of its death, and I am induced again to allude to this circumstance, for what I have found in cases where I was obliged to perform the disagreeable and dangerous operation of introducing the hand. In no such cases, in my opinion, will this be required, unless perhaps where fatal results are anticipated from profuse and sudden hæmorrhage.

Edinburgh Medical and Surgical Journal, Jan., 1840, *p.* 242.

[We must beg to disagree in some opinions which the author of this otherwise excellent paper advances with respect to the action of the secale on the child. He thinks it acts perniciously, owing to the uninterrupted pressure of the uterus upon the brain of the child, or to the premature detachment of the placenta. Now we know that the head of a child may be pressed upon very severely for a considerable period, and yet the child will generally be born alive, if the pains of the uterus are *not uninterrupted*. We have had numerous cases of this kind, where the head has become impacted in the bones of the pelvis, by the severe action of the uterus, and yet, if the pains abated ever so little (and we never knew a case of labours where the pains were uninterrupted except from the effects of ergot), the child would be born alive: and therefore we are not warranted in supposing that pressure upon the brain of the child to the extent which we may suppose the womb can exert, is the cause of death. Neither can we suppose that a premature detachment of the placenta so often takes place while the child is in utero; in this case we should often have copious flooding either before or after the birth of the child. We might not, indeed, have much flooding externally whilst the head of the child firmly blocked up the external passage, but the uterus would probably be unusually distended with coagulum, which would be discharged afterwards; whereas, how often does it happen that the child is still-born from the effects of ergot, and no hæmorrhage whatever follows the expulsion either of the child or placenta. We should rather attribute the bad effects of ergot upon the child to the following cause: and we may be permitted to form an opinion after a very extensive practice in midwifery for the last ten years.

In order that ergot should act perniciously on the child, it is in the first place necessary that its action on the uterus should be *uninterrupted*. We have seldom or never witnessed any bad effects on the child when the patient had some *rest between the pains*. This is a remarkable fact and when pointed out, will no doubt be corroborated by most medical men of experience. We may give secale with perfect safety both to mother and child, if we give it in that moderate dose (as from 20 to 30 grains), which shall not produce an *uninterrupted* action of the womb. But as certainly as we give it in an immoderate dose we shall kill the child, unless it be expelled very shortly after the violent action of the womb has taken place. If the os uteri be fully dilated and the pelvis sufficiently capacious we may give ergot in much larger doses with impunity, because the violent action of the womb is modified, or, as it were, counteracted by the rapid descent of the child. But what is the reason of all this? It has never yet been satisfactorily explained in any publication with which we are acquainted. We would humbly suggest that it is owing, not to the pressure of the womb upon the child; not to the entanglement of, or pressure upon the cord; not to the premature de-

tachment of the placenta—but simply to the long-continued stoppage of the circulation through the vessels of the womb, and consequently to the want of proper oxidation and decarbonization of the fœtal blood; and this view seems to be quite confirmed by all the facts which can be advanced to support the opposite opinions.

By the continued, uninterrupted, and violent action of the uterus, the circulation is almost completely impeded, and the child dies in the same way, and from the same cause as when an adult dies, when deprived of atmospheric air. It will survive a certain time even when the uterine circulation has been thus nearly completely interrupted, but it cannot survive long. It will also survive if the violence of the pain abates a little, so as to give the uterus an opportunity of having its vessels replenished with a fresh supply of the maternal blood.

And when we reflect on the kind of connexion which exists between the placental and uterine vessels, and also upon the kind of parietes of which the womb is composed, we can readily conceive that nothing would be more easy than to prevent communication between the vessels of the placenta and uterus by the continued efforts of the parietes of the womb to contract. We believe that during every pain of the womb in all labours there is a short interruption to the communication between the placenta and uterus, but this is not felt by the child, because it is momentary. And if the uterus were to act without interruption in any labour, even independent of the action of the ergot, the effects upon the child would be equally pernicious: hence we see the wise provision which exists to prevent this evil, by the womb contracting and relaxing at intervals. This view is confirmed by the fact mentioned by Dr. Carriere, of Strasbourg, that during the uterine contractions, the *blowing sound* produced by the flux of the arterial blood into the uterine sinuses is very much weakened or altogether suspended, and again returns when the pain has subsided. The same blowing sound will even continue for some time after both child and placenta have been expelled, when the uterus does not contract properly.*

While we are dwelling on the effects of ergot, we would refer our readers to an elegant preparation of it made in the way described by Dr. G. O. Rees, and recommended so strongly by John C. W. Lever, Esq., in the Medical Gazette. It is an ethereal solution of ergot which seems to have all or most of the good effects, with few of the bad effects. Dr. Rees proceeds as follows to decribe the way in which he prepares it.]

The ethereal solution, the properties of which you have so well tested, was prepared by digesting ʒiv. of the powdered ergot in f ʒiv. of ether during seven days. The result was a solution of fatty matters contained in the drug: this was poured off, evaporated to dryness, and the residue again dissolved in f ʒij. of ether. I have since tried to re-dissolve in alcohol, but the fatty matter appears to contain myricid, which resists the menstruum even at a boiling heat. The solution should be kept in a well-closed glass-stoppered bottle, to prevent evaporation. Each ounce of the preparation may be considered as equivalent to two ounces of the ergot, or *m*xv. to a half-drachm dose of the powdered drug. Should there be any objection to the administration of the ether, the practitioner has only to drop the required dose upon a piece of lump sugar, and expose it to a current of air for a few minutes, when the fluid will completely evaporate. I regret that I have not had leisure to procure the different fatty matters of the ergot in a separate form, and so subject each to trial as a medicinal agent. If this were done, there is little doubt but that a still more convenient form for exhibition might be ob-

* See Article 61, for some very interesting observations by Dr. Carriere, which will completely confirm our views on this subject.

tained, and the peculiar action of the drug traced to its true source. It appears highly probable that the fatty matter contained in the ergot is peculiar in character; from one specimen which I examined, I obtained a fat which, when treated with strong sulphuric acid, became a fine green colour—a reaction which I am not aware has ever yet been noticed as occurring with any fatty substance either from the vegetable or animal kingdom.

Medical Gazette, April 10, *p.* 108.

60.—NEW METHOD OF TREATING RETROVERSION OF THE WOMB.

By CHARLES HALPIN, Esq. Cavan.

(Read before the Obstetric Society of Ireland, Jan. 2, 1840.)

[The author first enters into the explanation of the nature of retroversion of the womb. It is that mal-position when the fundus, instead of lying upwards towards the umbilicus, is forced downwards and backwards into the pelvis, below the promontory of the sacrum, whilst the os uteri is carried forwards above the symphysis pubis. Retroversion generally takes place between the third and fifth month of pregnancy, but may also arise independent of impregnation. Before explaining his own method of returning the womb into its proper place, he enumerates the methods of several eminent accoucheurs, which were chiefly by the use of the fingers or the hand. Dr. Davis was the first who mentioned any other means than the fingers or hand. "He advises the introduction of the first and second fingers of the right hand within the sphincter ani, with which we are to keep a steady pressure on the uterine tumour, so as to raise it up gradually. This must be done, not by violent jerks, but by most cautious efforts. If the fingers are not sufficient, Dr. Davis recommends an instrument that shall be long enough to continue the bearing; it consists of a piece of cane of considerable thickness, with a broad, firm, and finely textured piece of sponge secured at its top. When this has been borne for some time on the retroverted fundus, the latter will sometimes be felt to pass suddenly up into the abdomen.

Mr. Halpin then relates the case which first called his ingenuity into exercise, and which neither he nor Dr. Finlay could reduce by the ordinary method. He found that his fingers embraced too small a space on the fundus, and instead of its being replaced it only became indented. He then says:]

I now saw clearly that my own chance of rescuing this woman from her perilous state, would be in the use of some instrument which could be brought to bear equally on all parts of the tumour, and with which sufficient power could be applied to raise it fairly above the promontory of the sacrum.

It instantly occurred to me that *with the assistance of a bladder I should be able to inflate the pelvis, and thus raise its contents into the abdomen.* We acted on this suggestion. I attached a small recent bladder to the tube of a stomach pump, with an air tight piston, and having immersed it a few moments in warm water, to bring it to the heat of the body, I introduced it, empty, into the vagina, between the fundus of the uterus and the rectum. Retaining it within the vagina by holding my hands firmly across the orifice, Dr. F. inflated it slowly and steadily. After a time she complained of a sense of tension or bursting, but no pain. We then ceased throwing air into the bladder, allowing what was already in to remain, keeping up, as it did, a steady, equal, well-directed pressure on the tumour. After the expiration

of five minutes, we threw more air into the bladder, when the patient exclaimed slowly, "Oh, now you are forcing something up to my stomach!" I retained the bladder sometime longer in its situation; and then, previous to withdrawing it, permitting the escape of some air, I introduced my finger, and had the satisfaction of finding that the tumour was no longer in the pelvis, and that the os uteri lay within reach of my finger, pointing downwards and backwards. I then, and not till then, removed the apparatus.

I come now to consider the instrument which I have found so efficacious. It consists of a small recent bladder, armed with a stop-cock, attached to the tube of a syringe: from our knowledge of the capacity of the pelvis, it will be easy to select one of proper size. A recent bladder is to be preferred, as being particularly easy of introduction. I stated in the commencemeut, that it is easily applied, safe in its employment, and unerring in its effect; and I do hope, and trust, that when trial has been made with it, its utility will be admitted. If the force obtained by a body of air is not sufficient for the purpose, by substituting water we shall be in possession of a power that will be irresistible, not only by the soft parts within the pelvis, but even (were it necessary) to the bursting asunder the bones that form that cavity; whilst, at the same time, we have this power so completely under control, that no bad consequences can arise from its use. Contrast it for one moment with the formidable proceeding of introducing the whole hand into the vagina, or through the sphincter ani, together with some fingers of the other hand into either of those passages to assist it. Not all the proper caution of the senior surgeon of the Hotel Dieu, at Lyons, can ever make this other than a painful, dangerous operation.

This instrument, I take it, is applicable not only for restoring the uterus to its normal situation, but also for retaining it there. Dr. Gurtshore advises filling the hollow of the sacrum with sponge, to prevent a recurrence of the retroversion.

Dr. Blundell and others, direct us to keep the patient in bed for two or three weeks, resting on the knees and elbows once or twice each day, for an hour or two at a time. Very few women will, or can, submit to this confinement. The retroversion having been rectified, I would introduce as a pessary, a gum-elastic bag constructed on this principle, and inflate it to a proper state of distension. It will remain without producing the least annoyance to the patient; and cannot from its nature, obstruct the free passage of either urine or fæces; whilst it will render the descent of the uterus within the pelvis a matter of impossibility. This pessary will also be found useful in other affections of the uterus, and its appendages.

Dublin Journal of Medical Science, March, 1840, *p.* 76.

[In a discussion on this subject in the Dublin Obstetrical Society, Dr. Churchill says that he]

Should not *a priori* have supposed that the apparatus used by Dr. Halpin would have served his purpose, as he should have imagined the bag would have become distended as much towards the neck of the uterus as towards its fundus.

Dr. Beatty agreed in the principle that a dilating bladder expands in every direction it can; he thought, therefore, in the case detailed, it did fill up the vagina at *every* point; then the question was, whether the distending force being continued, it would tear the vagina at its anterior part, or force up the fundus? The latter being found easier to effect, the fundus yielded and the organ was restored. Dr. Beatty then alluded to the interesting case detailed by Mr. Baynham, in the Edinburgh Medical and Surgical Journal, a case in which, having found all the ordinary means fail, he punctured the uterus through the rectum. The woman aborted twenty-five hours after and re-

covered. He thought the operation worth recollecting; one point connected with it, he considered interesting, in consequence of the discussion then going on in Dublin, with respect to the situation of the placenta; namely, that when the ovum was expelled, the placenta was found pierced by the trocar at the part which corresponded to the fundus uteri. She was then in the sixth month of her pregnancy.

Ibid., May, 1840, *p.* 345.

61.—ON OBSTETRICAL AUSCULTATION.

By Dr Carriere.

The following summary of an elaborate thesis recently published at Strasbourg by Dr. Carriere, will probably be read with profit as well as interest.

Dr. C. alludes to the more than ordinary difficulties which attend the successful pursuit of this branch or department of auscultation. He admits that he was often foiled in his early attempts, and that it was only by the most assiduous perseverance that he at length succeeded in being able to recognize the various sounds which have been described as emanating from the uterus when in an impregnated state. He does not, however, hesitate to assure his readers that any one may, by repeated practice, acquire—provided his hearing is of average delicacy—the necessary aptitude to recognise, and that, too, with facility, all the auscultatory signs of pregnancy.

The following is the manner in which Dr. C. proceeds in his examination. He commences by applying the end of the stethoscope, the plug being removed, to the left iliac region, because there the double pulsation or tictac of the fœtal heart is most frequently heard. If it is not audible there, he moves the instrument a little up, then down, then to the outside, and lastly to the inside of the spot from which he started, thus proceeding from the left iliac region as from a centre. As soon as he discovers the pulsation he follows it, step by step, as it were, so as to determine the direction in which it is heard, and the precise point at which it is loudest and most distinct.

Even when we discover the cardiac tictac in the left flank, it is always right to examine with equal care the opposite one, as it is possible that another pulsatory sound may be heard on the right side.

Having thus satisfied ourselves of this most important phenomenon we should then endeavour to detect the other accoustic sign of pregnancy—the blowing or placentary sound.

"In women," says Dr. Carriere, "whose pregnancy is but little advanced, as far as the third or fourth month for example, the placentary or blowing sound is to be sought for immediately above the symphysis pubis, the fundus of the uterus scarcely overtopping at this period the plane of the inlet of the pelvis. In such an examination it is quite necessary that the woman should be lying on her back, with the limbs drawn well up so as to have the abdominal muscles relaxed, and that the stethoscope be used for the purpose of pressing them well in upon the uterus. This is especially important at the early periods of pregnancy: as then, not only should the abdominal parietes be kept in immediate contact with the uterus, but also this viscus with the contents within its cavity."

The Blowing Sound.—This phenomenon consists usually in a sort of jerking sound (bruissement saccade) more or less prolonged, and interrupted by regular intervals; it has been frequently compared to the sound proceeding from certain arterial aneurisms.

Laennec compares it to the blowing noise frequently heard in the large arteries of chlorotic patients; Velpeau to the sound of muscular contraction, or to that produced by strongly compressing arterial trunks. To say the

truth, it is certainly not easy to convey to those who have not heard it, a right idea of the uterine blowing sound.

Whatever be its character, it is always strictly isochronous with the pulse of the mother—becoming duller and more prolonged, when the pulse is slow; and more short and dry, when the pulse is quick. It is never accompanied with any shock: and it is usually limited to a circumscribed spot, decreasing in distinctness as the stethoscope is removed from the point where it is heard loudest. Let it also be remembered that at one moment it may be heard distinctly, and that the next minute it may be quite inaudible; its tone and character being often found to vary in the course of a few minutes. It is generally imagined that the blowing sound is heard on the opposite side of the hypogastrium from that on which the fœtal pulse is perceptible. That this is not always the case will appear from the circumstance that, out of sixty-one cases observed by Dr. Carriere and in which the exact position of the two sounds was carefully noted, they (the sounds) were heard on the same side in not fewer than thirty-four.

Of sixty-six cases, where the position of the blowing sound was noted, it was heard on the left side in thirty-eight, on the right side in twenty-eight, eleven times about the middle of the hypogastrium, seventeen times higher up, and thirty-eight times low down; or we may state these results in a different manner, the *bruit de soufflet* was heard twenty-one times on the left side and low down, seventeen times on the right side and low down, eleven times on the left side and high up, five times on the right side and high up, six times on the left side and in the middle, and six times on the right side and in the middle.

With respect to the earliest period at which this sound may be heard, Dr. C. informs us that he has in several cases succeeded in detecting it as early as the end of the third month, when the fundus of the uterus had scarcely passed above the level of the pubis. Far from being diffused at so early a period of pregnancy as Hohl has alleged, Dr. C. always found it to be limited to a very circumscribed spot at first.

As this sound is intimately connected with the circulation in the placenta it is obvious that it must be audible earlier in some cases than in others, as it is well known that the placenta varies a good deal in the place of its attachment to the uterus in different cases; being sometimes near to the fundus and in other cases considerably lower down. The higher up it is, the more early, we may expect, will be the developement of the blowing sound.

As pregnancy advances, it becomes much louder and more readily recognisable. However it is not always loudest in the eighth and ninth months; being in some cases observed to be much more distinct and obvious in the seventh. The causes of the various modifications of this sound in different cases are certainly not well known.

During the uterine contractions, or pains of labour, the blowing sound becomes much weaker, or is altogether suspended, returning, however, after the pain has passed away.

It is usually much more distinct after the amniotic waters have been discharged.

Not unfrequently it continues for several hours after the expulsion not only of the fœtus, but of the placenta also. Dr. C. is of opinion that this persistence of the sound after delivery is connected with the more or less imperfect contraction of the uterus upon itself.

Without canvassing the opinions of other writers, as to the cause of this sound, we shall now briefly state the views of Dr. Carriere on this much disputed point.

"I am quite satisfied in my own mind that the uterine blowing sound has its cause in the passage of the arterial blood in the uterine sinuses, and that

in the great majority of cases its seat corresponds exactly with the insertion of the placenta.

"In a number of cases where I have passed my hand along the umbilical cord after the delivery of the child, I have always found that the placenta has been attached exactly at the point of the uterus over which the blowing sound had been heard during gestation. In one interesting case of death from convulsions within twenty-four hours after delivery, the place still quite visible on the inner side of the uterus, where the placenta had been adherent, was found on dissection to correspond precisely with the spot where the sound had been perceived during life. I believe, with M. Dubois and others, that the mechanism of the blowing sound has something analogous with that of the sound heard over an aneurismal varix, its determining cause being the flux of the arterial blood into the uterine sinuses, a flux which is more active and considerable at the point where the placenta is implanted.

"Occasionally, but this is rare, the blowing sound is perceptible over almost the whole anterior surface of the uterus.

"This fact," says Dr. C. "which denotes great activity in the uterine circulation, does not at all militate against the opinion which I profess relative to the relation of the blowing sound to the placenta; for I have never pretended that the dilation of the uterine vessels was limited abruptly to its circumference; and on the other hand I am convinced that, in those cases where the sound is unusually widely diffused, it is always more decided and sibilant at the one point where the placenta is implanted."

With respect to the value of this blowing sound as a sign of pregnancy, Dr. C. is inclined to consider it as an almost certain indication. He much doubts whether the presence of a tumour in the pelvis or in the uterus itself does ever give rise to the *genuine* blowing sound of pregnancy, although M M. Velpeau, Rayer, Bouillaud, Bricheteau, and Stoltz have asserted that such has been the case.

With Mr. E. Kennedy, he believes that the sound may continue to be heard, but less distinctly, for some time after the death of the fœtus.

The Fœtal Pulse.—Dr. Carriere compares the double *tic-tac* of the fœtal pulse to the tickling of a watch wrapped round with several folds of linen, with this difference only, that the latter sound is drier and of a more metallic sharpness than the former. The number of pulsations varies from 120 to 180; the average frequency may be said to be 140 beats in the minute. In force and distinctness too they are found to differ much, not only in different cases, but also in the same case at different times; sometimes they are so distinct that they are at once, and without the least difficulty, perceptible, whereas in other cases it requires the greatest attention and nicety of observation to detect them at all. Occasionally the fœtal pulsation appears to be simple and not double, as usual, the second sound of the heart's action being quite obscured.

In reference to the comparative constancy of the two uterine sounds, viz., the placentary and fœtal, it has been asserted by almost every writer on obstetrical auscultation, that the sound of the fœtal heart is greatly more constant than the placentary or blowing noise.

"In consulting," continues Dr. C., "a summary of the observations, which I have made since the period when I could place confidence in my auscultary inquiries, I find that out of fifty-nine cases, the blowing sound was detected in fifty-seven, and the fœtal pulsation in fifty-seven also. In these reports, I find it frequently remarked, 'no blowing sound appreciable;' then afterwards, perhaps in a few days, or a week or two, 'blowing sound strong, intense, or even whistling,' &c. It is therefore quite manifest that, before we can establish the relative constancy of the two signs, we must not trust too much to the results of a single, or even a few observations. If a woman

be examined but only once, there is certainly, on the whole, a greater chance of detecting the fœtal pulse than the blowing sound."

Most obstetrical auscultators agree that the fœtal pulse is rarely, if ever, heard before four months and a half or five months have elapsed. We cannot wonder at this, when we remember that the organ, even at this latter period of intro-uterine life, is still very small, and that moreover the fœtus lies low down towards the cervix of the womb, and therefore behind the symphysis pubis. Even for a month or two later, the great relative quantity of the amniotic fluid, the mobility or want of fixed position of the fœtus, the size of which is not yet nearly sufficient to fill the bag of the membranes, &c., are circumstances which tend, even up to the middle of the sixth month of gestation, to occasion many chances of unsuccess.

In the majority of cases, the spot, which corresponds to the greatest intensity of the sound, is situated on a line between the umbilicus and the antero-superior spine of the ileum, or towards one of the iliac fossæ. In some cases the pulsations are found in the line of the *linea alba* between the pubes and the umbilicus; and, in a few rare cases, they have been perceived quite towards the fundus of the uterus.

The extent over which they are audible is very various; being sometimes only two inches square or so, at other times comprising almost the whole of the lumbar and iliac regions of one side; most frequently it is a space which may be covered with the hand.

In eighty-five cases, where I have accurately noted down the exact spot where the fœtal pulse was perceptible, I found it seventy-four times low down, eleven times high up, forty-five times on the left side, thirty-seven times on the right side, and three times in the middle or along the line of the *linea alba.* Forty-three times its maximum of intensity was low down and on the left side, thirty times on the right side and low down, three times on the left side and high up, and seven times on the right side and high up. I may remark that in several of the cases where it was heard high up, the pregnancy had not passed beyond the sixth or seventh month.

L'Experience, and Med. Chir. Review, April, 1840, *p.* 509.

62.—THEORY OF MENSTRUATION.

By M. Gendrin.

The following extract, from the recent systematic work on practical medicine by M. Gendrin, will explain his views as to the cause or nature of the menstrual function.

"The observations, which we have presented to our reader's attention, necessarily lead us to modify very essentially the hitherto received opinions, on the subject of generation of women. They tend to establish that, during the whole of that period of life when the capability of conception continues, there is a constantly successive development of vesicles, and ovula in the ovaries; that, at each epoch of menstruation, a vesicle having reached the surface of the ovary becomes the seat or focus of a peculiar organic action, in which all the organs of generation partake; and that the result of this action is the rupture of the vesicle, and the loss of the non-fecundated ovum, either by ovarian destruction or by uterine expulsion.

The recent observations by Valentin, according so well with, and therefore confirming our deductions drawn from physiological considerations, have shown that the Graafian vesicles contained or inclosed an ovulum, in which are found all the essential parts of a human ovum.

As we find at the same time in the ovarium, vesicles in various degrees of development, we cannot well doubt that they exist there only during a limit-

ed time or period, from their origin to their spontaneous rupture, which takes place whenever their increase and that of the ovulum are completed. This rupture takes place regularly, at stated intervals, by an organic action, one result of which is the menstrual secretion."

Dr. Negrier, professor of midwifery in the Medical School at Angers, has written, we observe, a letter to one of the French periodicals, in which he claims the priority of authorship in respect to the preceding views on menstruation. His words are:—

The researches of M. Gendrin have led him to believe that the menstrual flux is the result of a periodic and regularly recurring congestion, which takes place every month in the ovaries.

This doctrine I have taught in my lectures ever since the year 1830, and I have repeatedly shown to my pupils the successive evolutions of the ovarian vesicles from their earlier developments to their final rupture, as well as the condition of the uterus at its different phases.

Gazette Medicale, and Medico-Chirurgical Review, April, 1840, *p.* 517.

63.—ERGOT OF RYE AS A MEANS OF INDUCING PREMATURE LABOUR.

By James Patterson, M. D.

Dr. Patterson has related two interesting cases of the induction of premature labour by means of the ergot of rye. Deformity of the pelvis was the cause of this operation being required. In the first case half an ounce of the ergot of rye was infused in twenty-four ounces of boiling water, and two ounces of this exhibited every third hour. When this quantity was finished, two drachms more were infused, and administered at shorter intervals; so that altogether the patient took six drachms of the medicine. Labour soon came on, and thirty-nine hours and fifteen minutes from the first administration of the medicine she was delivered of a live child.

The second case required a larger quantity of the ergot, and a greater quantity of time before its specific effects were developed. In all, thirty-four drachms of the ergot of rye were administered; and the time elapsed from the first dose of the medicine till the expulsion of the child was five days, twenty hours, and twenty-five minutes. Both patients rapidly recovered.

Dr. Patterson considers these cases are extremely interesting, as they appear to prove satisfactorily that the ergot of rye is of itself sufficient to bring on premature labour, without being followed by bad symptoms or inconvenience either to the mother or child. Dr. Ramsbotham, in the Gazette for June 15, mentions, that in his hands this practice was followed by a greater mortality among the children than when the usual mode of inducing premature labour by puncturing the membranes was followed; and that in four instances, the children delivered by the aid of the ergot died of convulsions a few hours after birth. He attributes this to the deleterious properties of the ergot being conveyed to the infant, and acting injuriously on its tender organization, although it does not affect the mother; convulsive seizure being one of the prominent features of ergotism.

June 1, 1839, *Med. Gazette, and Edinburgh Medical and Surgical Journal, Jan.* 1840, *p.* 252.

ANATOMY AND PHYSIOLOGY.

64.—THEORY OF ANIMAL HEAT.

By Henry Ancell, Esq.

[After enumerating the different theories respecting animal heat, Mr. Ancell gives a very interesting one of his own, which he believes to be new. He states that]

The source of animal heat is in the blood itself; it results from the molecular vital actions of that fluid, and the source of the higher temperature of warm-blooded animals is in the more energetic molecular actions continually going on between the red corpuscles and the liquor sanguinis. These molecular actions are obviously most energetic in the lungs; hence the relation between respiration and the heat of animals; the high temperature of the arterial blood; the correspondence which exists between the temperature of a part and the quantity of blood which circulates in it; and the relation subsisting between animal temperature, and the form, size, and number of the red corpuscles. By this hypothesis we could understand also, the discrepancies which happen between the amount of respiration and the heat of the body, before alluded to. It may well be imagined that alcohol received into the blood would increase these molecular actions and the temperature of the body, and since the latter is not in this case the result of the normal pulmonary absorption of oxygen, we should not expect an increased exhalation of carbonic acid from the lungs, but rather the contrary, and such we find, according to Dr. Prout, to be actually the case. Saline particles taken into the blood would have an analagous effect. Persons who have lost much blood have the faculty of producing heat diminished in correspondence with the diminished proportion of red corpuscles in the blood remaining in the system. It has been observed by M. Poiseuille that when the blood falls in temperature, the corpuscles stagnate and remain immoveable; when it rises again in temperature, "their oscillation recommences." I could multiply these illustrations to a great extent.

The temperature varies in different parts of the body, and this bears an imperfect relation to the distance of the part from the thoracic viscera, but you will find it much more nearly connected with the quantity of blood which it circulates. Dr. Edwards and M. Gentil found in a strong man, the mouth 120°; the rectum 102°; the hands 99° 5; the axilla and groin 99°; cheeks 96° 5; feet 96°. Now when we consider the redness and activity of circulation in the hands, it is not surprising that they are warmer than the axilla and groins, and this observation bears out the general proposition that temperature corresponds with the circulation of the blood. Internal are hotter than external parts; this is in part attributable to the cooling power of evaporation, in part also to the quantity of blood. A new instrument has lately been applied to determine the temperature of internal parts by means of thermo-electricity. With this instrument the temperature was found to be 4° higher at the depth of the pectoralis major muscle, than in the cellular tissue just below the surface, and a similar difference was observed in other

parts of the body. Not only depth, but the nature of the tissues influences the temperature, to be explained most likely by the different quantities of blood which they circulate. In these experiments, on compressing the brachial artery, a fall of temperature was indicated with great rapidity, the effect and its amount being ascertained immediately after the application of the cause. Muscles receive a larger supply of blood than cellular tissue, and are accordingly hotter. This accords with some experiments made by Mr. Vines, who found the heat of parts most supplied with red blood, as the glutei muscles, several degrees above those supplied with "white blood," as the interior of the ball of the eye. During muscular contraction, also, the temperature is increased, but it is a fair question whether this arises from a greater afflux of blood alone, or whether heat is produced. The most remarkable fact of the kind is recorded, if my memory serves me, by Dr. Granville, who found the uterus at 120° during its contraction. When muscular parts increase in temperature, the neighbouring parts, both by contiguity and by afflux of blood, must do so also.

The temperature of infants and their power of producing heat being low, remarkably coincides with a statement made in a former lecture that their corpuscles are larger and fewer in number. The mean of ten observations by Edwards gave 94°5, but the converse holds from the fourth to the fourteenth year, and no microscopical observations has been made on the corpuscles at that age that I am aware of.

Here is an important practical consideration:—anything which cools the blood of a part cools the whole body. In Dr. Edwards' and Gentil's experiments, one hand having been kept in water, cooled down by ice, the other hand lost nearly 5° of temperature, so that the chilling of a part, as the hands or feet, or chills on the surface, are felt in all parts of the body. I know that this effect is likely to be referred to nervous influence, but I believe it to be communicated to the whole system through the blood. Heat is communicated in a similar manner. I remember seeing, a few years since, in a public hospital, an athletic, plethoric man, brought in with strangulated hernia: he was inadvertantly put into a bath at 108°? in a few minutes he became raving delirious; this was quickly followed by convulsions, and before he could be well replaced in his bed, he was a corpse; the pulse, in this case continued for some time after the respiration had stopped. Here was the effect of heated blood circulating with undue rapidity in the brain, spine, and throughout the body.

Enough will have been said to convince you that every observation you make upon the *temperature* of your patients, whether of a part or of the whole of the body is an observation on the *blood;* it may also refer to states of the nervous apparatus and powers, but it is necessarily an observation on the blood. You will further be convinced of the immense importance of this consideration when I inform you that, as was long since proved by Hales, the movement of liquids through tubes is rapid in the ratio of their temperature; so it has lately been shown by M. Poiseuille, that the heat of the blood exercises a most powerful influence over the rapidity and force of its circulation.

Mr. Ancell's Lectures.—London Lancet, Feb. 29, 1840, *p.* 829.

65.—DEPENDENCE OF VASCULAR ORGANIZATION ON PHYSICAL CAUSES.

By Sir Anthony Carlisle, F.R.S., &c.

[Sir A. Carlisle, in an interesting paper in the last Guy's Hospital Reports, attempts to prove that vascular organization at its commencement at least, is more dependent upon physical than vital causes; for example, says he:]

Streamlets, similarly divaricating, appear on the sea-shore, where little pools of water remain embanked by sand. The water oozing through the sand issues in streams; and these subdivide, according to the declivity, into arborescing streamlets, which sometimes again reunite into larger branches, as in the anastomoses between arteries and veins in animal structures. The same appearances often occur upon clayey or muddy declivities over which streamlets of water flow. Dendritic figures are also common in many stones which were formerly regarded as petrefactions of previously-organized structures. In the compact marly limestone, called lithographic stone, these figures often occur; and generally on the surfaces of laminæ, by which it would seem that the ochry pigment had percolated and spread in the same manner as in that hereafter described respecting pottery. The moss agates, certain marbles, and mocha stone, exhibit similar dentritic figures; while the entire bodies of certain corrallines assume an arborescent character, as in the corollina muscosa of Ellis. These ramifying figures are not, then, the special productions of living bodies, because they occur in mineral formations, and when they are not the impressions of organized structures. In some instances of organic nature, arborescent figures depend upon tubular vessels, as in animals; but in vegetable structures, these figures are composed of solid, woody fibres, while the frame-work of the wings of insects consist of a solid horny substance.

[He then goes on to relate three interesting and simple experiments to show that a similar arborescent or dentritic appearance to that which we perceive in newly-organized structures, is assumed by inorganic bodies, or bodies void of vitality.]

Experiment 1.—If common whiting be mixed with water, so as to reduce it to the consistency of a thin cream, and a few drops of it be placed upon a piece of glass by means of a common brush, it will be found that, in a few moments, arborescing figures begin to appear in every part, and which, converging together, produce a very beautiful ramifying apppearance, traversing every portion of the glass over which the mixture had been spread. This effect can be produced more quickly when the glass is placed either in the vertical position, or at an angle of 45°.

Experiment 2.—Having mixed common potter's clay with sufficient water to render it capable of being dropped upon a plate, and then dipping the point of a quill into the mocha fluid hereafter described, carefully touch the surface of the liquid clay with it: and as soon as this has been done, it gives rise to a beautiful arborescence, presenting all the appearances of minute vascular injection. It is this figure which in our potteries is distinguished by the name of mocha pattern.

Experiment 3.—If blood just taken from a patient labouring under an acute inflammatory disease, be allowed to remain at rest for a short time, the buffy coat begins to form; and if before it has become at all crisped or dry, a single drop of uncoagulated blood be allowed to touch its surface, it is immediately diffused in an arborescing manner.

[In the second experiment it will be seen that the arborescence takes place by the dispersive property of the mocha, and in the third experiment by the red fresh blood; so that it seems to be the author's view in all fresh deposits of lymph in the human body, the contact of red blood immediately produces that arborescence which eventually ends in blood-vessels and vascularity; just in the same way as the mocha (the property of which consists in an essential oil), produces beautiful arboresence in potter's clay. But neither Sir A. Carlisle nor Muller, whom he quotes to support his views, tells us how the red blood escapes from the adjoining blood-vessels, seeing they have no open mouths, and the red globules are

far too large to squeeze through the coats of the vessels. The author then proceeds to draw a very practical conclusion from his theory. He says:]

It is a remarkable fact, that, as in the example of the double rotation of granules of camphor on water, so in the experiments with the potter's clay, the addition of a very small quantity of oil or fatty matter is at once sufficient entirely to arrest the dispersive process;—while modern surgery has now proved the greater advantage to be derived from the simple application of water dressing to recent wounds, than from the continued employment of oleaginous applications, which have been adopted rather from mere custom and precedent, than from any understood rationale of their action: may it not also be presumed that the dispersive action of the red blood is, like the essential oil, capable of being retarded by contact with oily matter; and may not the less beneficial effects resulting from greasy applications, to forming granulations and the adhesive union, depend on the arrest of dendritic motions, and the consequent retardation of vascular organization?

Guy's Hospital Reports, April, 1840, *p.* 2—11.

66.—ON THE EXISTENCE OF MILK IN THE URINE DURING PREGNANCY.

By Golding Bird, M.D.F.L.S., &c.

[Dr. Bird has been induced to examine the urine of pregnant women from reading in several journals of a supposed discovery of a peculiar mucilaginous principle, dignified by the name of Keistein, and said to be present in such cases. He, however, finds that it is nothing more nor less than certain elements of milk which have been secreted by the mammary glands, and not finding an outlet by the ordinary means of suckling, have been excreted with the urine. The circumstance, however, of this substance being so generally present in the pregnant state, will be an important addition to our signs of pregnancy, if similar phenomena are not afterwards perceived in the urine of unimpregnated women, respecting which Dr. Bird does not feel quite satisfied. He says:]

The first specimen of urine committed to examination was some voided by Catherine Shaw, aged 28, a married woman in the sixth month of pregnancy admitted under my care at the Finsbury Dispensary, on October 17th, 1839, for a slight attack of bronchitis. The urine was passed immediately on rising from her bed; it was tolerably copious, pale, acid, and rather opaque of sp. gr. 1.020. About half a pint of it was placed in a glass cylinder, covered with paper. After two days' repose it became very much troubled: numerous globules, presenting a fatty or greasy aspect, appeared on its surface: in two days more the urine became completely covered with a pellicle, very closely resembling that which forms on the surface of mutton-broth in the act of cooling: on the sixth day of exposure, this crust broke up, and fell to the bottom of the vessel. On the 26th of October, this patient, now convalescing from her bronchial affection, again sent me a specimen of the urine, voided as before, immediately after awaking from sleep: and the very same results were obtained; the pellicle of fat-like matter being, however, much thicker. On November 30th, the urine was again exposed, with precisely identical results. Although in this woman the phenomena presented by the urine were tolerably constant, yet it became an important matter to determine whether such appearances were not to be met with in the urine of women who were not pregnant, and whether they were constant in every case of utero gestation. To determine the latter question was, within certain limits, some-

what easier than the former; for this purpose, every pregnant woman who was admitted under my care at the Finsbury Dispensary, or among my out-patients at Guy's Hospital, was desired to furnish specimens of urine, passed after awaking from sleep; this request was not in every instance complied with; but during the months of November and December, specimens from about thirty women, in the third to the last month of pregnancy, were obtained; and in every case, with but three exceptions, copious fat-like pellicles were observed, after two or three days exposure.

[A little further on the author states that]

There are few products formed during repose in urine which can be readily confounded with this caseous pellicle; if it be borne in mind, that the secretion remains faintly acid up to the moment of breaking up of the crust: which phenomenon I am inclined to regard as arising from the developement of ammonia in the urine, as at this time it acquires distinct alkaline properties. The crust of earthy phosphate, which forms on the surface of all urine by long repose, cannot be mistaken for the pellicle under consideration; as that which destroys the latter, viz., putrefaction, causes the production of the former.

[The author concludes his interesting paper by the following deductions:]

1. That certain organic matters, closely resembling, if not identical with, caseous matter mixed with abundance of the earthy phosphates in a crystalized state, are eliminated from the blood during pregnancy; and if not otherwise removed, are taken up, and finally thrown out of the system, by the kidneys.

2. That certain accidental circumstances, especially connected with those morbid actions in which the kidney is called upon to perform a compensating function for the skin, as indicated by the abundance of azotised matter in the urine, interfere temporarily with the developement of caseous matter, as they do in checking the cutaneous and other secretions.

3. That, taken in connexion with other symptoms, as the formation of a dark areola round the nipple, and cessation of menstruation, or abdominal enlargement, the formation of a caseous pellicle in the urine affords a very valuable corroborative indication of the existence of pregnancy.

Guy's Hospital Reports, April, 1840, *p.* 16—26.

67.—RAPID CIRCULATION IN THE LYMPHATIC SYSTEM.

By T. Wilkinson King, Esq.

The structure and arrangement of the absorbent tubes, their small size, their innumerable valves, the rapid narrowing of the aggregate passage towards the heart, and the extremely attenuated and yielding nature of their coats, all serve to render the onward current subject to every neighbouring movement.

The motion of the intestines, the arterial impulses, the action of respiratory and all other muscles, and especially the grand movements of respiration, together with the influence of some atmospheric exhaustion, cannot fail to co-operate with the preceding circumstances to accelerate the currents in question.

It is important to remark, that it does not necessarily follow, from the slow dropping of chyle and lymph into the vena innominata, during experimental observations when there is very little present, that the current is at all times tardy.

Guy's Hospital Reports, April, 1840, *p.* 97.

[Aselli, as well as Mr. King, noticed the rapid and almost instantaneous disappearance of the currents in the lacteals, while the animals experimented upon were dying and struggling, showing perhaps that one struggle may empty the lymphatic system. The glands do not seem to retard the flow, but act like forcing pumps by the aid of the arterial injection. Every intervalvular space seems to be a positive heart, and therefore we may suppose that the power in these vessels is not so slight as we at first sight should imagine, seeing that Mr. King has calculated that there are 30,000 valves in the lymphatic system, and only 5000 pairs in the veins, *i. e.*, six times the number in the former. Mr. King, therefore, seems to come to a just conclusion, that the circulation in this system is very rapid indeed, and that this is one reason among others why it was superadded, when the venous system itself might have answered the purpose.]

68.—ON THE NERVES OF THE CORNEA.

By Dr. Pappenheim.

The cornea has been represented by M. Hyppolyte Cloquet to be devoid of nerves as well as of blood-vessels. In 1830, however, Schlemm succeeded in tracing nerves as far as the margin of the cornea, though its density prevented his following them between its laminæ. The investigation thus commenced has been pursued by M. Pappenheim, who, by a simple process, that of immersing the cornea in acetic acid, or a solution of caustic potass, has been able to trace nerves from the sclerotica in to the substance of the cornea. That the nerves thus traced really belong to the cornea, the following facts appear to prove:—

1. If the corneal conjunctiva is removed, the nervous filaments are seen on the inner, not on the outer surface of the corneal epithelium.

2. The removal of the iris and membrane of the aqueous humour makes no difference as to the ease with which the nerves may be seen.

3. The nerves are distinctly visible entering the margin of the cornea, but less so towards its centre, where they are ultimately lost between the laminæ.

The nerves may be distinguished from the folds of the choriod which mark the cornea by being colourless, and of uniform thickness; from the fibres of the cornea by being smaller, more superficial, scattered, and arranged in plexuses. Internally they are covered by the membrane of the aqueous humour, externally by the fibres of the cornea. The readiest way of discovering them is to immerse the dissected cornea in water, placing it between two plates of glass, with its inner surface turned upwards—gentle pressure, and the light of a lamp are required, and at first a slightly magnifying lens will be desirable. The nerves will then be seen taking the course course of the blood-vessels, and composed of fasciculi for the most part separate.

British and Foreign Medical Review, April, 1840, *p.* 548.

69.—SOURCE OF THE WATERY DISCHARGE FROM THE MOUTH IN PYROSIS.

[Dr. Burne, in his work on habitual constipation has given rather a new, yet apparently satisfactory, explanation of the source of the watery fluid discharged during a paroxysm of pyrosis. His words are:]

If this fluid came from the stomach, the stomach being full of the preceding meal, it is impossible to believe that none of the food would be

thrown up with it; and as no food is mixed with the fluid, one must look elsewhere for its source. Whence else can it proceed? From the salivary glands and muciparous follicles of the mouth and throat? When an emetic is taken, and the person feels sick, the mouth instantly fills with water, which runs from it in a clear stream, and then follows vomiting of the contents of the stomach. This clear stream is unquestionably furnished by the salivary glands and muciparous follicles of the mouth and throat, suddenly excited to inordinate secretion by sympathy with the troubled stomach; phenomena which form an exact parallel to the nausea of pyrosis and the sudden discharge of the limpid fluid. In both cases the fluid is tasteless, clear, thin and rather ropy; and in both it proceeds from the same source; of which any one may satisfy himself by questioning patients closely, when he will be informed that the fluid runs from the mouth when nausea supervenes, but is not eructated or vomited.

Edinburgh Medical and Surgical Journal, April, 1840, *p.* 486.

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THE

RETROSPECT

OF

PRACTICAL MEDICINE AND SURGERY,

BEING

A Half-yearly Journal,

CONTAINING A RETROSPECTIVE VIEW OF EVERY DISCOVERY AND PRACTICAL IMPROVEMENT IN THE MEDICAL SCIENCES.

Edited by

W. BRAITHWAITE,

Surgeon to the Leeds General Eye and Ear Infirmary; and Lecturer on Midwifery, and the Diseases of Women and Children, in the Leeds School of Medicine.

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PRACTICAL MEDICINE.

PRACTICAL MEDICINE,

&c., &c.

ART. 1.—TREATMENT OF INCIPIENT PHTHISIS.

By H. MARSHALL HUGHES, M.D., Assistant Physician to Guy's Hospital, and Physician to the Surrey Dispensary.

[FROM the investigations of Laennec, it is acknowledged that "tubercular cavities after collapse and contractions may become effaced by the adhesion of their parietes, or that from their limited extent and inactivity, they may cease to be a source of danger, or even of inconvenience, and therefore, that if tubercles exist not in other parts of the lungs, the cure of advanced phthisis may be spontaneously (though not by medicines,) effected;" and however the recent work of M. Fournet may deny this, we are disposed to believe it. The great obstacle to the treatment of incipient phthisis has hitherto been the difficulty of knowing exactly when it has commenced: but this has been in a great measure overcome by the advances in auscultation and other physical means of diagnosis; and we are, therefore, bound to listen to any rational plan for the checking of this dreadful disease, which has been acknowledged to carry off one-fifth of the entire population of this country. Dr. Hughes obtained the hints for his treatment of the incipient stages of this malady from Sir James Clarke's admirable treatise on consumption, and Dr. Carswell's views respecting the principal seat of tubercle. Dr. Hughes proceeds to say:]

Tubercular phthisis, I believe to be a constitutional affection, either hereditary or acquired, in which an unorganizable matter is eliminated from the blood in a fluid state, together with the natural secretions of the parts affected. I suppose that this matter becomes at length solid, by the absorption of its fluid constituents; and either remains upon, or is more or less quickly removed from, the surfaces on which it is deposited, according to the entire want, or to the freedom of communication of those surfaces with the natural outlets of the body; that its principal seat is the free surface of the mucous and serous membranes; and that its most frequent locality, when affecting the lungs, though occasionally infiltrated through all the tissues of the organ, is the mucous membrane of the air-cells and smaller bronchial tubes. I moreover believe that this deposit or secretion, though it not unfrequently occurs without any decided or observable increased action of the vessels of the lungs, and is therefore not at first characterised by any marked thoracic symptoms, is, when the predisposition already exists, often induced, and increased by bronchitis, and other inflammatory affections of the tissues, by the vessels of which it is secreted.

That tubercular matter was sometimes secreted upon the free surfaces of mucous membranes, had been previously stated by other pathologists, and

particularly by Andral; but it is, I believe, to Dr. Carswell that the profession is indebted for the opinion, supported by numerous and minute dissections, that this is "its especial seat of election."

[Dr. Hughes' treatment seems to consist chiefly in the use of emetics frequently repeated; assisted by counter-irritation, iodine, and tonics: the first, however, obtains his chief confidence, with respect to which he says:]

When, however, I became acquainted with the views of Dr. Carswell upon the principal seat of tubercle, it appeared to me obvious, that, if these views were correct, emetics might be freely administered in the early periods of the complaint, with the very probable hope of expelling at least a portion of the tubercular deposit, of preventing its increase, and therefore with the rational expectation, if not of removing the proximate cause of the disease, of materially retarding its progress.

The emetics employed have been of different kinds, and in various proportions. My object has been, to ensure full vomiting once or twice; but at the same time to avoid, as much as possible, any subsequent straining or exhaustion. With this view, I commenced with five grains of the sulphate of copper, and five grains of ipecacuanha: but, from the continued retching occasionally produced by this combination, I afterwards ordered either six or eight grains of the sulphate alone, or ten or twelve of the ipecacuanha, according to the strength and susceptibility of the patient. I subsequently tried sulphate of zinc, in doses of ten or twelve grains; and afterwards six grains of ipecacuanha and two of sulphate of copper. The preparations of antimony, in consequence of their tendency to cause exhaustion, and, if not entirely rejected, to induce irritation of the bowels, and diarrhœa, I have not employed; except in those cases in which I had reason to suspect the existence of bronchitis or slight pneumonia. The result of these trials, as to the operation of the respective forms of emetic, has been the assurance, that the medicine which has been the most effective, and at the same time the most lenient, in one person, has not necessarily been so in another. On the whole, from pretty extensive experience of those mentioned, I believe that either the simple sulphate of zinc, or ipecacuanha, in doses of twelve grains or a combination of six grains of ipecacuanha and two of sulphate of copper, are the most desirable forms and proportions that I have used. Smaller quantities have occasionally failed. Under these circumstances, nausea, but no vomiting, and on one or two occasions diarrhœa, have been induced by the medicine. The emetics have been directed to be taken in a few ounces of warm water, about an hour before breakfast, every morning; or every second, third, or fourth day, according to the strength of the patient and the character of the disease. Their uniform effect, with I believe a solitary exception, has been very materially to relieve, and, in not a few instances, entirely to remove the cough. On several occasions, when they have not been taken every day, patients have been requested to observe whether their cough was better on those days in the morning of which they took the emetic. The answer has generally been decidedly in the affirmative; but it has certainly sometimes been, that though the cough was much lessened, it was not especially so on any particular days.

But the decrease or cessation of the cough has been far from the only benefit derived from the use of emetics. Their effect in relieving dyspnœa, oppression of the chest, and load at the scrobiculus cordis, has been often surprising to the patient as well as the physician. The appetite has often improved under their use, and the whole system appeared invigorated. Only a few days since, a patient said: "Ever since I began to take the powders, my appetite, which before was bad, has been ravenous." Their effect also upon the expectoration has been very marked, but various. In some cases,

when previously profuse, it has been checked, and in others stopped; and while some patients have observed "they have brought up the phlegm more easily," others, whose cough had before been dry, have experienced ease from the excited secretion of the bronchial membrane. It must however be confessed, that some have complained of the continuance of languor and nausea for a considerable part of the day, and of the exhaustion which they have temporarily endured. But even in these cases I have never yet known any permanently injurious consequences result from their frequent employment. I am, however, far from believing that emetics are desirable remedies in every case of phthisis, and perhaps even of the incipient disease. Some care and discrimination are required in the selection of cases, before deciding upon their administration. As a general rule, it may be observed, that the earlier the stage, and the more chronic the character of the disease, the greater has been the benefit derived from their operations. In many cases of incipient phthisis, they, combined with other means to be afterwards mentioned, have certainly checked, and apparently removed the complaint; and in some examples of old chronic disease, accompanied with evident dulness below one or both clavicles, but without any evidence of cavities or softening tubercles, great and obvious advantage has resulted from their use. In acute or febrile phthisis, they, together with every other remedy I have employed, have appeared to effect little or no good. Where considerable debility and much perspiration have existed, the advantage derived from them has been doubtful; and when hectic has been present, and softening has decidedly commenced, they have not seemed to check the progress of the disease. But though the benefit arising from their continued use in such instances has been questionable, considerable temporary relief has often followed their occasional administration. On the whole, emetics are by far the most effective remedies that I have yet myself employed, or seen others employ, in the early stages of phthisis; and, combined with other means, appear to me, both from theory and experience, to hold out a probable hope of the cure, or at least the entire suspension of the complaint.

[Speaking of counter irritation, iodine, and tonics, he says:]

Whether there has been tolerably decisive evidence of the presence of tubercles in the lungs, or no physical sign of the actual existence, and merely a fear of their probable deposition—or whether softening has already commenced—I have ordered the liniment, composed of acetic acid and turpentine, recommended by Dr. Stokes, to be freely rubbed upon the chest, night and morning. The effect of the blisters has been, in particular cases for which they have been ordered, as in ordinary cases of bronchitis, unaccompanied with turbercles, almost always beneficial. The liniment—which, for the purpose of extemporaneous prescription in hospital and dispensary practice, has been composed merely of one ounce of strong acetic acid and two oz. of spirit of turpentine, shaken together—has been of very great service; not merely by affording great relief to the symptoms, especially by decreasing the dyspnœa, and enabling the patients more freely to expand the chest, but, I believe, in rendering them less susceptible of atmospheric changes and other external impressions. From the almost enthusiastic manner in which some patients have spoken of the great comfort they had derived from its use in bronchitis as well as in the early stages of phthisis, I cannot but think, with Dr. Stokes, that the benefit derived has been in many cases greater than could be explained by its simply counter-irritant effect. The advantage derived from the use of the tartar emetic ointment, and other counter-irritants, in the chronic examples of the complaint, has been much less decided.

Iodine.—The very obvious effect of this substance and its preparations, in promoting absorption; the evident advantage resulting from their use in enlarged glands and other forms of disease accompanied with the deposit of

scrofulous matter; the similarity, if not perfect identity, of scrofulous and tubercular matter; their decided action as alteratives: and the very marked benefit to the general health derived from their exhibition to persons affected with strumous disease; all indicate that iodine and its compounds are medicines worthy of a careful and extensive trial, in the early periods of phthisis. Their effect upon scrofulous enlargements is seen and acknowledged; visible and tangible morbid deposits are known to disappear under their use; and no valid reasons can, I think, be assigned, why, under equally favourable circumstances, they may not have an equally beneficial operation upon scrofulous deposits in the lungs. It has been given in doses of one-twelfth to one-eighth of a grain, with two or four grains of the iodide of potassium, and half a drachm or a drachm of syrup of poppies, either in simple water, or more commonly in the infusion of calumba. The operation of this medicine is generally slow. I have no hesitation in stating my conviction, that iodine and preparations are very valuable remedies in the treatment of incipient phthisis.

Tonics.—When the local irritation produced by tubercles has been subdued, or when it has not existed, tonics have been freely administered, with the view and hope of improving the general health of the patient, and of changing that morbid condition of the fluids and solids of the body upon which the secretion of tubercular matter probably depends. They have usually been given in conjunction with iodine; but where this medicine has disagreed, or not acted beneficially, either the oxide of iron, or the tinct. ferri sesquichlor., has been combined with a bitter infusion; or a grain of sulphate of iron, and one or two of the sulphate of quinine, have been prescribed with infusion of roses. Together with these have been ordered as nutricious a diet as the stomach was able to digest, or bear without inconvenience; moderate exercise in the open air; and where they were attainable, the use of horse exercise—a residence in the country, where the air was mild and dry—and a constant exposure to its invigorating influence, which I regard as by far the best tonic remedies for incipient phthisis.

[When Dr. Hughes mentions the preparations of iron, he might with safety have recommended the precipitated carbonate as used by Mr. R. Carmichael, of Dublin, an account of which is given in the first number of this volume, and also the protoxide as recommended by Mr. Donovan. (*See number one of this volume.*)

We ourselves have lately met with great encouragent in the treatment of incipient phthisis as described by Dr. Hughes, by means of the precipitated carbonate, and the free use of common salt as used by M. Latour; and we are persuaded that these two remedies are destined to form important means of treatment whenever the blood requires to be altered in its composition. Witness the effects of salt, for example, in many cases of typhus as described by Dr. Stevens; what can be more rapid and more extraordinary than the sudden changes which we have witnessed to take place from his saline treatment? and it is possible that the similar effects of the hydriodate of potass in typhus, as described by Dr. Morrison in another part of this number, may be owing to a similar effect on the blood.

Dr. Hughes proceeds to say:]

I have not felt justified in prescribing the frequent use of emetics for patients whom I saw only once in the week, or at most only every three or four days, while they were affected with hæmoptysis of either a mild or severe character; but I may observe, that in no single instance have I known their use either to excite or reproduce the hæmorrhage. If, however, when the hæmoptysis has ceased, the general symptoms and the local signs of incipient phthisis have remained behind, then the use of emetics has been commenced, and the same treatment has been adopted as in the other varieties.

[It is in the simple chronic form of incipient phthisis, uncombined with either bronchitis or hæmoptysis, that he finds his treatment chiefly efficacious; and it is in these cases which he excepts, which are accompanied by inflammatory action, that Dr. Stokes, Dr. Graves, and others have found such decided benefit from mercury.

Dr. Hughes describes the symptoms and treatment of his simple chronic form as follows:]

The sound, on percussion, is in some cases, not at all, and in others scarcely perceptibly changed: and if, upon accurate comparison between the two sides, or between them and the other regions of the chest, any difference is discovered, it is often found to consist, not so much in a diminution of the loudness, as in an alteration of the character or the quality of the sound elicited. The inspiration is accompanied with a hoarse, rough and dry sound; the soft pure murmur is scarcely discernible; and the expiratory murmur is increased in its intensity, and sometimes though not always, in its duration, so as nearly or quite to equal, and sometimes even to surpass that of inspiration. The voice may be not materially modified; but more commonly, when the stethoscope is applied to one of the infra-clavicular, or more particularly the supra-subscapular regions, it is observed to be shriller and louder than at other parts; and if the increased vibration is considerable, it is appreciable by the fingers as well as by the ear. It is in these cases that the emetic plan of treatment has been most extensively tried by myself, and has been found of such vast benefit.

In this form of the complaint, emetics have generally been ordered to be taken every morning, and have often been continued for three or four weeks; the frequency of their repetition, and the continuance of their use, being regulated by the duration, the decrease, or cessation of their symptoms. Their effect upon the cough has been really astonishing; and their influence upon other symptoms, though perhaps less obvious, has been exceedingly beneficial. Patients, after continuing them for a week, have sometimes said that their cough had entirely ceased, though it had existed for several weeks or months before; and that, after the immediate effect of vomiting had disappeared, their appetite had considerably improved. A few, and a very few, have desired that they might be allowed to discontinue their use, in consequence of the unpleasant temporary effects which they produced; but have at the same time acknowledged the great advantage they had derived from their exhibition. In conjunction with frequently-repeated emetics, iodine, in the form previously mentioned, has been almost always administered in these cases; and the tartar-emetic ointment, as a counter-irritant, at the same time applied to the infra-clavicular regions.

[He finishes his interesting paper by saying:]

I am not so sanguine as to believe that the benefit derived will, in all cases, be permanent; particularly as in many instances the patients have, on their recovery, returned to the situations and employments which either originally induced or fostered their complaints. I do not even, for I cannot, assert that the means advocated will cure incipient phthisis; as, to be able to do this, it would be necessary to *demonstrate*, first the presence, and afterwards the absence of tubercle in the lungs: though I do believe, both from observation and from theory, that they are calculated to effect a cure: and I do state my conscientious conviction, that they have, in some cases, stayed the progress of the disease; that in others they have suspended it altogether; and that thus, in the words of Sir James Clarke, "they have afforded time for the correction of the constitutional malady."

Guy's Hospital Reports, Oct., 1840, *p.* 197—214.

[The following article will more particularly explain what we mean by the mercurial treatment of some forms of phthisis.]

2—ON THE MERCURIAL TREATMENT OF SOME FORMS OF INCIPIENT PHTHISIS

By Wm. Munk, M.D., Physician to the Tower-Hamlets Dispensary.

[This mode of treating some forms of phthisis, was first advanced by three of the most eminent of the Dublin physicians, Sir Henry Marsh, Dr. Graves, and Dr. William Stokes. Dr. Graves says in one of his clinical lectures :]

I must here in justice confess that the idea of this plan of treatment is not solely mine, but was founded on an analogy derived from the researches and experiments of Dr. O'Beirne, on scrofulous inflammation of the joints. An extensive experience and deep reflection first led Dr. O'Beirne to think that the acute stage of scrofulous inflammation of the hip and knee joints might be made amenable to active and energetic treatment; in other words, that inflammatory affections of the joints which terminate in some of the worst and most fatal forms of disease, namely, morbus coxæ and white swelling, might be checked *in limine*, and before the stage of hopeless ulceration was established. He, therefore, proceeded boldly and at once to try whether the disease might not be arrested in the commencement by rapid mercurialization.

[The disease in the form in which mercury was found useful frequently commenced after the manner of a common catarrh: the symptoms gradually increased in severity, and at last, continues Dr. Munk :]

There is emaciation and loss of strength; the phenomena of common pyrexia merge into or are changed for those of hectic, among the symptoms of which, rapidity of pulse and morning perspirations will be found the most marked. There is severe and harrassing cough, with or without a viscid purulent expectoration, considerable hurry of respiration, shooting pains about the shoulders, disturbed and sleepless nights. The stethoscopic signs at this period consist of a minute and clear mucous rhonchus, more properly, perhaps, designated by the term muco or sub-crepitant, and existing only in the superior portions of the lung. In other cases there is heard at this part of the chest a modification of the normal respiratory sound, which, when once distinguished, can never afterwards be mistaken, but the description of which in words, as of most other sensations, is a task of difficulty. The respiratory murmur is here somewhat modified, scarcely if at all diminished in intensity, yet giving the sensation of being moister, as though the bronchial tubes were lubricated with more fluid than in their healthy state; not, however, as it would seem, in sufficient quantity to produce the subcrepitant or mucous rhonchi. In these instances, we may occasionally, by very careful and prolonged examinations, detect at long intervals, especially on a deep inspiration, a solitary and minute mucous bubble. Here we generally find that expectoration is exceedingly slight, or altogether wanting; whilst in the cases presenting the subcrepitant or mucous rhonchi, expectoration does exist, although rarely to any great extent. Little or no information can be obtained from percussion during the earlier periods of the disease, the chest then sounding perfectly well. As the case, however, advances, more or less dulness is perceived; and when this occurs, the active ausculatory signs undergo a corresponding modification. At first there is an increase in duration and intensity of the expiratory sound, giving to the whole respiration a sensation of greater roughness; this increasing, passes onwards into well-marked bronchial respiration, coincident with which there is bronchophony and bron-

chial cough. It were useless to trace these cases further: tubercular matter has now been deposited in considerable quantity, the case is one of confirmed phthisis, and the period for the employment of mercury has passed.

[The disease might commence also with severe and universal bronchitis, and this form therefore, differs widely in its commencement from that described by Dr. Hughes in the preceding article. It might also commence with some general disorder of the whole system, "as for instance, essential fever, the exauthemata, influenza, &c."]

The condition now under consideration is neither more or less than that which determines scrofulous deposition to the lung, whilst it is, at the same time, the very action by which this deposit is effected.

[From the united labours of Sir James Clarke, Dr. Carswell, and Dr. T. J. Todd,] has resulted the important pathological law, that *tuberculous matter exists as a morbid constituent of the blood, is eliminated from it by a process analagous to, if not identical with, secretion, and is thus deposited, in a visible form, in different organs or parts.*

The contamination of the blood exists in some cases for a long period, and proceeds to a great extent before the deposition of tubercle commences. It seems not improbable that in such instances the sanguineous fluid becomes so thoroughly saturated (if the phrase be allowable) that an attempt at relief is then commenced, and nature sets about the work by eliminating the morbid product in conjunction with the secretions. Dr. Carswell is of opinion that the surface of mucous and serous tissues are those upon which tubercular matter is chiefly deposited; that as regards relative frequency the former very far exceeds the latter; for here, he says, "as into the great emunctory of the system, it appears to be separated from the blood, and becomes visible to us under a variety of forms." Dr. Carswell is at issue with most pathologists as to its deposition in the molecular structure of organs. In no one instance has he witnessed it so situated. Our own observations tend to an opposite conclusion, although we doubt not that the most frequent sites of tubercle are those pointed out by Dr. Carswell. We believe, with most other pathologists, that tubercular matter has no peculiar site; that it *may*, under certain circumstances, appear in any organ or part of the body, making its appearance there by a lesion of nutrition, whereby such matter is secreted in place of, or in union with, those molecules of the blood, which, appropriated to the organ itself, become an integral portion of its structure, and thus repair the losses it is ever undergoing.

This deposition is frequently a silent process; it commences and proceeds to a certain point, unaccompanied by any known pathological state, or, if the phenomena of disorder do occur, they are to be regarded as effects or coincidences rather than as causes. It will probably be found that this relation obtains only in those cases where scrofulous cachexia, and the contamination of the blood, which is its essence, has proceeded to a considerable degree, and where the local deposite is the result of the overcharged condition of the blood, rendering relief by the elimination of some portion of the morbid constituent indispensable.

In other, and perhaps the majority of instances, tubercle is deposited long ere the chachectic state has arrived at the degree above supposed. In these such an event is determined by irritation or inflammation, under the influence of which there is a larger afflux of blood on the part, and coincident with it an increase and modification of secretion. In lieu of the results of common inflammation, as occurring in a healthy subject, there is here deposited tubercle, or coagulable lymph variously modified, the modification consisting in the approximation of that product more or less closely in character to tubercle. The analogy which exists between these two morbid products, and

the mode in which one may pass into or give origin to the other, has been clearly shown by Dr. C. J. B. Williams.

Medical Gazette, Oct. 16, 1840, *p.* 112—118.

[Further on, Dr. Munk proceeds to say:]

The close connection existing between irritation or inflammation in one or other of the tissues of the lung, and tubercle as cause and effect, has been particularly dwelt upon by Andral.* In reference to these pathological conditions he states that, in certain cases, and those not the least numerous, *the morbid alterations of the lung were evidently prior to the formation of the tubercles, and contributed to produce them.* In the Clinique Medicale there is a passage explanatory, in some respects, of that just quoted. In it the author alludes to the influence of bronchial inflammation as giving rise to tubercle.

Sir James Clarke also expresses his belief that inflammation in a tuberculous constitution may give rise to the deposition of tuberculous matter in place of coagulated lymph, which, in healthy subjects, is its natural product, and thus inflammation may be one of the immediate causes of tuberculous disease.

Cases like these are far more numerous than is now generally admitted. The existence, in one class of cases, of inflammation within the lung, to be succeeded by the deposition of tubercle, as cause and effect, is widely different from those in which an inverse relation obtains—where tubercular matter is first laid down, and inflammation follows either as consequence or coincidence. The causes determining tuberculous disease towards the lung are, in these instances, widely different; in one it is well known, and within the reach of medicine; in the other it is unknown, and the means at our command are comparatively inoperative. One class of cases are curable, though, from circumstances, not always cured; the other are incurable, as regards medicine, though nature's efforts are, in a few rare instances, more successful.

As inflammatory action is in these cases the distinguishing characteristic, and throughout performs so important a part, it is but natural, that to its consideration, much attention should be given, and that its removal should be held as a canon of the first importance in our treatment.

A medicine was wanting more potent in its effects, one whose action was evidenced not so much upon the central organs of the circulation as are blood-letting and digitalis, but on the periphery of the system, the capillaries.

Iodine and its numerous preparations have been recommended to public confidence, as a medicine in some degree calculated to meet this want. The action of iodine is manifested principally as a stimulant of the capillaries; by giving tone to these vessels it expedites the circulation through them, obviates and removes congestion, and frees the secretions. It exercises little if any control upon the peculiar action, whatever it be, that constitutes inflammation; but after the removal of this state a degree of congestion commonly remains and here iodine is most effectual.†

It has, by abundant experience, satisfactorily been proved that in the treatment of common inflammation there are no means at our command, which in point of efficacy, will bear comparison with mercury.

Dr. Stokes writes as follows:—"As to the general employment of mercury in incipient phthisis, I am anything but sanguine, yet that by its assistance

* Pathological Anatomy, translated by Drs. Townsend and West, vol. 2, p. 553.

† There are peculiarities in the action of the analogous substance, bromine, which seem to point it out as peculiarly adapted to certain forms of scrofulous disease, especially phthisis. I am at this time making comparative trials with the bromine and iodide of potassium, the results of which, I hope, at a future period, to lay before the profession. Of its superiority in some forms of cardiac disease I am already pretty fully convinced.

in removing irritation from the mucous membrane and parenchyma we may occasionally arrest the development and progress of tubercule, seems more than probable, for there can be little doubt that in the scrofulous habit there is more danger from the persistence of irritation of the lung, than from the action of mercury on the system."

The existence, then, of such irritation or inflammation, whether membranous, parenchymatous, or, as is most frequently the case, the two combined, is that which calls for immediate attention to the lung, even at a temporary disregard of the constitution. Dr. Corrigan says that the use of mercury is in removing that degree of low, local inflammation, which, allowed to remain unchecked or improperly treated, would terminate in tubercular deposition and consequent phthisis. And Dr. Graves, after mentioning those cases of consumption which arise gradually and insidiously, whose commencement it is impossible accurately to determine, goes on to say, " the reason of this is because the tubercular affection of the lung is in such patients only of secondary importance, the disease which produced it having affected the whole system before the lung was contaminated. This happens in some, but in others an opposite train of phenomena is observed, and scrofulous inflammation commences in the lung before any general contamination of the system has taken place. It is in such cases, and such only, that mercury ought to be tried, and it will avail nothing except where the commencement of the scrofulous inflammation of the lung has arisen suddenly, and in consequence of the operation of some obvious cause, as catching cold, or the occurrence of hæmoptysis."

It may then, in general terms, be stated that the absence of pre-existing tubercular deposit from every organ of the body is the circumstance justifying our neglect of the contra-indication which scrofulous cachexia presents to the employment of mercury.

Its use, when once commenced, must be regularly continued until the gums become affected. From an irregular and indecisive administration of this medicine ill effects will almost invariably result. Should it, therefore, manifestly disagree, its exhibition must be immediately and finally desisted from. In other instances, where but slight phenomena of disorder occur, it becomes a question, to be decided only by the circumstances of the individual case, whether, despite of these, to continue its employment, or withdraw the medicine and attempt to remove the cause upon which its injurious effects appear to have depended. In the latter instance we may, perhaps, be justified in once more resorting to its use; but if it again disagrees, the medicine must be at once withdrawn, never more to be employed.

I have usually combined in one formula, with the mercurial, ipecacuanha and a sedative: the frequent irritative and distressing cough commonly attending this disease proving, as it does, a constant source of disquietude through the day, and of restless nights, with the results of broken rest, are indications sufficiently clear (independent of those derived from the general habit) for the administration of sedatives. Hyoscyamus or conium are those which I principally employ; but where these fail of producing the desired effect, recourse may be had to hydrocyanic acid, belladonna, the salts of morphia, &c. Ipecacuanha acts beneficially in freeing the expectoration, and I am inclined to think, determines the action of mercury more particularly to the bronchial mucous membrane.

However beneficially these measures may operate, it must not be forgotten that the employment of mercury is but preparatory to other and more strictly curative treatment.

One great object in administering mercury is to gain time for the employment of measures to restore the general health, by removing a local action which, allowed to continue, would give rise to such disorganization as quickly to place the patient out of the pale of cure, and long ere means calculated to

work a salutary influence on the constitution could take effect. Unless this truth be fully admitted, and the practice to which it leads rigidly enforced, mercury should on no account be administered.

Medical Gazette, Oct. 23, 1840, *p.* 156—163.

3.—ON THE PREPARATIONS OF THE INDIAN HEMP IN THE TREATMENT OF TETANUS AND OTHER CONVULSIVE DISEASES.

By Dr. O'Shaughnessy, Professor of Chemistry in the Medical College, Calcutta.

[We give nearly the whole of the following valuable and curious account of this (to us) new article, together with the remarks of the editor of the British and Foreign Medical Review, as the account is too interesting to be much curtailed.]

This pamphlet contains a detail of facts of a very important kind, which, we doubt not, will cause a great sensation among the members of the profession throughout the world. We feel it, therefore, to be a duty to give as full an account of its contents as our space will permit. It will appear clearly from what we shall state that Dr. O'Shaughnessy has the merit of having added to *our* materia medica a drug of great and unequivocal powers, and probably a remedy, of marked efficacy in diseases hitherto the most unmanageable. For the sake of accuracy, in a matter of so much consequence, we shall avail ourselves, as much as possible, of the author's own words, and endeavour to communicate all the more important facts in a series of extracts from his pamphlet.

"The narcotic effects of hemp are popularly known in the south of Africa, South America, Turkey, Egypt, Asia Minor, India, and the adjacent territories of the Malays, Burmese, and Siamese. In all these countries hemp is used in various forms, by the dissipated and depraved, as the ready agent of a pleasing intoxication. In the popular medicine of these nations we find it extensively employed for a multitude of affections. But in western Europe its use either as a stimulant or as a remedy is equally unknown. . . . Much difference of opinion exists on the question, whether the hemp so abundant in Europe, even in high northern latitudes, is identical in specific characters with the hemp of Asia Minor and India. The extraordinary symptoms produced by the latter depend on a resinous secretion with which it abounds, and which seems totally absent in the European kind. The closest physical resemblance or even identity exists between both plants; difference of climate seems to me more than sufficient to account for the absence of the resinous secretion and consequent want of narcotic power in that indigenous in colder countries.

Chemical Properties.—In certain seasons and in warm countries a resinous juice exudes and concretes on the leaves, slender stems, and flowers. Separate and in masses it constitutes the *churrus* of Nipal and Hindostan, and to this, the type or basis of all the hemp preparations, are the powers of these drugs attributable. The resin of the hemp is very soluble in alcohol and ether; partially soluble in alkaline, insoluble in acid solutions; when pure of a blackish-grey colour; hard at 90°; softens at higher temperatures and fuses readily; soluble in the fixed and in several volatile oils. Its odour is fragrant and narcotic; taste slightly warm, bitterish, and acrid. The dried hemp plant which has flowered, and *from which the resin has not been removed*, is called *gunjah*. It yields to alcohol twenty per 100 of resinous extract, composed of the resin (*churrus*) and green colouring matter (*chlorophylle*). Distilled with a large quantity of water, traces of essential oil pass over, and the distilled liquor has the powerful narcotic odour of the plant. The *gunjah* is sold for smoking chiefly.

Popular Uses.—The preparations of hemp are used for the purpose of intoxication, as follows: *Sidhee*, *Subjee*, and *Bang* (synonymous) are used with water as a drink, which is thus prepared. About three tola weight, 540 troy grains, are well washed with cold water, then rubbed to powder, mixed with black pepper, cucumber and melon seeds, sugar, half a pint of milk, and an equal quantity of water. This is considered sufficient to intoxicate an habituated person. Half the quantity is enough for a novice. From either of these beverages intoxication will ensue in half an hour. Almost invariably the inebriation is of the most cheerful kind, causing the person to sing and dance, to eat food with great relish, and to seek aphrodisiac enjoyments. In persons of a quarrelsome disposition it occasions, as might be expected, an exasperation of their natural tendency. The intoxication lasts about three hours, when sleep supervenes. No nausea or sickness of stomach succeeds, nor are the bowels at all affected; next day there is slight giddiness and vascularity of the eyes, but no other symptom worth recording.

Gunjah is used for smoking alone, one rupee weight, 180 grains, and a little dried tobacco are rubbed together in the palm of the hand with a few drops of water. This suffices for three persons. A little tobacco is placed in the pipe first, then a layer of the prepared *gunjah*, then more tobacco, and the fire above all.

We shall now give a brief extract of the result of Dr. O'Shaughnessy's experience of this remedy on the human subject; noticing, in the first place, the preparations used by him and their doses.

"The *resinous extract* is prepared by boiling the rich adhesive tops of the dried *gunjah* in spirit (sp. gr. 835,) until all the resin is dissolved. The tincture thus obtained is evaporated to dryness in a vessel placed over a pot of boiling water. The extract softens at a gentle heat, and can be made into pills without any addition.

"The *tincture* is prepared by dissolving three grains of the extract in one drachm of proof spirit.

"*Doses, &c.*—In *tetanus* a drachm of the tincture every half hour until the paroxysms cease or catalepsy is induced. In *hydrophobia* I would recommend the resin in soft pills, to the extent of ten to twenty grains to be chewed by the patient, and repeated according to the effect. In *cholera* ten drops of the tincture every half hour will be often found to check the vomiting and purging, and bring back warmth to the surface. My experience would lead me to prefer *small* doses of the remedy in order to excite rather than narcotize the patient."

Rheumatism.—The remedy was tried in several cases both acute and chronic, but, as appears to us, without very satisfactory results. In one of the cases the most marked catalepsy was produced, besides the usual intoxicating effects.

"In several [other] cases of acute and chronic rheumatism admitted about this time, half-grain doses of the resin were given, with closely analagous effects; alleviation of pain in most, remarkable increase of appetite in all, unequivocal aphrodisia, and great mental cheerfulness. In no one case did these effects proceed to delirium, nor was there any tendency to quarrelling. The disposition developed was uniform in all, and in none was headache or sickness of stomach a sequel of the excitement."

Hydrophobia.—This was an undoubted case of the disease and was full-formed before the remedy was given. The results are certainly most cheering, although death was not averted.

"By his own desire water was brought in a metallic vessel, which he grasped and brought near his lips; never can I forget the indescribable horrors of the paroxysm which ensued. It abated in about three minutes, and morbid thirst still goading the unhappy man, he besought his servant to apply a moistened cloth to his lips. Intelligent and brave, he determinately

awaited the contact of the cloth, and for a few seconds, though in appalling agony, permitted some drops to trickle on his tongue, but then ensued a second struggle, which, with a due share of the callousness of my profession, I could not stand by to contemplate. Two grains of hemp resin in a soft pillular mass were ordered every hour; after the third dose he stated that he felt commencing intoxication; he now chatted cheerfully on his case, and displayed great intelligence and experience in the treatment of the very disease with which he was visited. He talked calmly of drinking, but said it was in vain to try, but he could suck an orange: this was brought to him, and he succeeded in swallowing the juice without any difficulty. The hemp was continued till the sixth dose, when he fell asleep, and had some hours' rest. Early the ensuing morning, however, Mr. Siddons, my assistant, was called up to him, and found him in a state of tumultuous agony and excitement. The hemp was again repeated, and again by the third dose the cheering alleviation of the previous day was witnessed. He ate a piece of sugar-cane and again swallowed the juice; he partook freely of some moistened rice, and permitted a purgative enema to be administered. His pulse was nearly natural, the skin natural in every respect. His countanance was happy.

"Four days thus passed away, the doses of hemp being continued. When he fell asleep, on waking the paroxysms returned, but were again almost immediately assuaged as at first. Meanwhile purgative enemata were employed, and he partook freely of solid food, and once drank water without the least suffering. But about 3 p. m. of the fifth day he sunk into profound stupor, the breathing slightly stertorous; and in this state he continued, and without further struggle death terminated his sufferings at 4 a. m. on the 27th November."

Dr. O'Shaughnessy's remarks on this interesting case seem well warranted, namely, "that at least one advantage was gained from the use of the remedy—the awful malady was stripped of its horrors; if not less fatal than before, it was reduced to less than the scale of suffering which precedes death from most ordinary diseases."

Cholera.—The epidemic in a few cases of which the hemp was tried was mild, and the results are therefore inconclusive; but they are, as Dr. O'Shaughnessy says, "*promising*, and deserve the attention of the practitioner."

Tetanus.—Several cases of the traumatic kind are recorded, which cannot fail to excite the highest expectations of the power of this remedy in this generally fatal disease.

In the first case, the disease supervened on dysentery from the action of a native moxa. Symptoms of tetanus occurred on the 24th Dec., and were well marked on the 26th, when (the case being considered hopeless) hemp was administered, at first in doses of two grains every third hour, afterwards of three grains every second hour. The usual intoxicating effects were produced, and the spasms were speedily mitigated, and at length finally ceased on the 6th Jan. The dysentery, however, proved fatal on the 23d.

"The *second case* was that of Chunoo Syce, in whom tetanus supervened on the 11th December, after an injury from the kick of a horse. After an ineffectual trial of turpentine and castor oil in large doses, two-grain doses of hemp resin, were given on the 26th Nov. He consumed in all 134 grains of the resin, and left the hospital cured on the 28th December.

Third Case.—Huroo, a female, æt. 25, admitted to the Native Hospital on 16th December, had tetanus for the three previous days, the sequel of a cut in the left elbow received a fortnight before. Symptoms violent on admission. Turpentine and castor oil given repeatedly without effect; on the 16th and 17th three grains of hemp resin were given at bed-time. On the morning of the 18th she was found in a state of complete catalepsy, and re-

mained so until evening, when she became sensible, and a tetanic paroxysm recurred. Hemp resumed, and continued in two-grain doses every fourth hour. From this time till the third hour tetanic symptoms returned. She subsequently took a grain twice daily till the 8th of February, when she left the hospital apparently quite well.

Mr. O'Brien has since used the hemp resin in five cases, of which four were admitted in a perfectly hopeless state. He employed the remedy in *ten-grain doses* dissolved in spirit. The effect he describes as almost immediate relaxation of the muscles and interruption of the convulsive tendency. Of Mr. O'Brien's seven cases four have recovered.

In the Police Hospital of Calcutta, the late Dr. Bain has used the remedy in three cases of traumatic tetanus, of these, one has died and two recovered.

A very remarkable case has recently occurred in the practice of my cousin, Mr. Richard O'Shaughnessy. The patient was a Jew, æt. 30, attacked with tetanus during the progress of a sloughing sore of the scrotum, the sequel of a neglected hydrocele. Three-grain doses were used every second hour, with the effect of inducing intoxication and suspending the symptoms. The patient has recovered perfectly, and now enjoys excellent health.

We think no unprejudiced reader of Dr. O'Shaughnessy's case of tetanus can hesitate to concur with him in his estimate of the remedy employed in them. "The preceding facts," he says, "seem unequivocally to show that when given boldly and in large doses, the resin of hemp is capable of arresting effectually the progress of this formidable disease, and in a large proportion of cases of effecting a perfect cure;" and we are, moreover, after reviewing the whole of the evidence here submitted to us, willing to join with him in the belief, "that in hemp the profession has gained an anti-convulsive remedy of the greatest value."

We regard the profession as under great obligations to Dr. O'Shaughnessy for the publication of the important facts detailed in the pamphlet; and we hope this obligation will be not the less willingly admitted that the author shows as much modesty in preferring his claims to notice, as he exhibits philosophical caution in his experiments and in drawing conclusions from them.

British and Foreign Medical Review, July, 1840, *p.* 225.

4.—BELLADONNA IN DYSMENORRHŒA.

By Dr. Burne, Physician to the Westminster Hospital, &c.

[Dr. Burne in his work on habitual constipation, recommends the extract of belladonna in this painful affection. He says:]

In the treatment of painful menstruation, I have found the belladonna most valuable. I have usually prescribed it in the dose of a *quarter of a grain of the extract*, made into a small pill, which may be taken twice a day, where patients suffer, but not very severely, for two or three days about the menstrual period. In the more urgent cases I advise it to be repeated in one hour; then again after an interval of two; then of three hours; till two, three, or four doses have been taken, according to circumstances: and I have seldom been disappointed in the result. It may produce giddiness and dimness of sight, but they soon pass away. Its unpleasant effects are less than opium, and its efficacy decided.

[Speaking of the effects of the ergot of rye in menorrhagia, the same author says:]

I have heard persons express doubts of its efficacy; but so many cases

under my own care have been benefited or cured by it, that I cannot but regard it as a most valuable addition to the materia medica.....Cases in which an exhausting draining hæmorrhage has persisted for five or six weeks after abortion have yielded at once to the influence of the ergot.

It is very important that the ergot should not be at all in a state of decay.

British and Foreign Medical Review, July, 1840, *p.* 44.

5.—ON THE USE OF QUININE IN YELLOW FEVER.

By the Editors of the Philadelphia Medical Examiner.

The Lafayette Gazette mentions the salutary effect in cases of yellow fever, derived from the exhibition of the sulphate of quinine, in very large doses. Several facts coming under our immediate knowledge enable us to corroborate this statement, and to add that we believe the "quinine treatment," as it is termed, to be a most important and incalculably beneficial discovery.

The manner of employing the quinine in fever cases, which has been followed by such astonishing success, differs altogether from the mode in which that remedy is usually administered. The common practice of physicians has been to give it in small doses during the periods of remission. The new practice is based on a different theory, and varies essentially from the old. When quinine is taken in large quantities, medical men have observed that it produces but a slight and inconsiderable stimulating effect, which is succeeded within a few hours by a powerful sedative impression, that is generally durable. With this view the medicine is exhibited in one very large dose, of from twenty to sixty or eighty grains, in the very incipiency of the fever, while the morbid action appears to be in process of formation—that is, within six or eight hours immediately after the appearance of the earliest symptoms. It is all important, if we rightly understand the theory of its use, that the quinine should be employed before local irritation or congestion has taken place, or, in other words, while the malady is confined to the nervous system, and the organization is as yet unimpaired.

When taken under such circumstances, its first effects are a very slight increase of the febrile symptoms; the pulse perhaps becomes quickened, the respiration more hurried, and the usual consequences of stimula are present. This condition is, however, but transient, and is promptly followed by corresponding depression. All the more violent symptoms subside; the temperature of the surface is lowered; pain diminished; the pulse is gentle and subdued; the skin is covered with a healthy moisture: in short, the chain of morbid associations becomes broken—sleep is superinduced, from which the patient awakes refreshed, and substantially better; and within twenty-four or thirty-six hours is considered in a state of convalescence. The treatment is, of course, not exclusively confined to the employment of quinine, though this is the chief remedial agent. The usual means of obviating tendencies to local irritation must be resorted to. The skilful practitioner will modify his curative measures according to the necessities of the case; cupping, leeching, the warm bath, and local applications, may be used as circumstances call for their employment. The quinine is administered in a single dose; the object of the physician is to bring about the sedative influence of the remedy, before any of the organs, as the head, stomach, &c., become specially affected by the disease. If it should fail to produce the anticipated effect, the case is too far advanced for a second trial, and it must be treated on general pathological principles. Let it, however, be remembered that, in thirty or forty cases which have been subjected to this novel curative method, not one has terminated fatally. The action of the quinine has been uniformly most

salutary, operating like a charm, and dissipating the symptoms of the malady ere they become concentrated on different organs.

We have been an eye-witness of the excellent effects of the quinine treatment in several instances, and can with justice render a tribute to the zeal and talent displayed by some of the members of the profession in the employment of this remedy. We are not aware to whom the merit of the discovery belongs. Those physicians who have paid particular attention to its *modus operandi*, and have employed it in the largest number of cases, are Drs. Hunt, Beattie, Farrel, and Mackay. These gentlemen concur in their views of the theory upon which the treatment is based, as well as in the unexceptionably advantageous results which accrue from its application.

American Medical Examiner, Oct. 19th, 1840, and British and Foreign Medical Review, July, 1840, p. 279.

6.—OBSERVATIONS ON THE OXIDE OF SILVER.

By C. H. B. Lane, Esq.

[We strongly recommend the careful perusal of the following communication from Mr. Lane. His reasons for the employment of the oxide instead of the nitrate of silver seem good, but want the support of that general experience, which has testified so unequivocally to the excellent remedial efficacy of the nitrate: and an English practitioner always feels diffident in trying a new remedy, when he has already one of a similar nature and of undoubted efficacy. Mr. Lane's reason for supposing that the oxide will not produce that discolouration of the skin which is occasionally produced by the nitrate seem plausible; and if correct, we should be enabled to administer this most valuable remedy with more confidence—although we confess that we think the fear of discolouration often groundless, considering the small doses in which it is given, and the short time generally required before its good effects are manifested.*]

The nitrate has been the form in which silver has been mostly employed; we owe it to alchymical research which, though futile as to its immediate object has had the beneficial result of affording us numerous powerful weapons wherewith to combat disease. As a local application it is in very general use; it acts chemically as a caustic, and is supposed to possess peculiar stimulant powers in addition, which opinion was originally advanced by Mr. Higginbottom, whose work is, I believe, the only English monograph on the subject which we possess. In the present day there has been some tacit acknowledgement of a contra-stimulant influence, but it is vague and undefined. I do not believe nitrate of silver to possess any stimulant action beyond that connected with its causticity: any destructive process tends to excitement if reaction takes place, and will be indicated by pain, that vigilant sentinel of our corporeal welfare. The action of silver I consider as directly sedative as that of lead, only differently evinced. While the primary sedative action of lead is on the nerves of animal life, perhaps that of silver is in special relation to those of organic life, by which the capillary circulation is believed to be governed—this refers to the primary effect, for once the constitution affected, the sedative impression is conveyed to the nervous centres, and the further results may be varied. We will take a case of morbid vascular action occurring in a cutaneous surface, with a view to contrast the respective therapeutic action of lead and silver. We find the application of acetate of lead attended by diminution of sensation, and if the surface be at all abraded, some degree of pain may ensue from the contact of the foreign body, as also from the stimulation of the free acetic acid. The continued application of the lead may annihilate the sensation of the part, and that safeguard of the sur-

* See an able article on this subject by Dr. Hudson, in this volume.

face being destroyed, organic life is but too readily arrested, an evil to be carefully avoided. Suppose, on the other hand, we apply the nitrate of silver to what is termed an inflamed surface. It acts primarily as a caustic, becoming decomposed and combining with albumen, first as a chloride, and subsequently as an oxide, constituting a foreign body which protects the surface from external impressions, a mechanical effect well described by Higginbottom; and this process is attended with more or less pain in proportion to the liability of the surface to impression either from abrasion or excited sensibility: slight organic action even may ensue, causing serous effusion. The excitement, however, generally quickly disappears, and a distinct therapeutic action is evinced. The morbid state, whether demonstrated in increased capillary circulation, secretion, or absorption, subsides; when the affection is local it is often quickly subdued. In the incipient stage of anthrax there is no local application which equals nitrate of silver in efficacy; in several cases where freely applied, I have seen it arrest the local mischief which there was every reason to suppose would have otherwise gone through the tedious process of sloughing—suppuration and ulceration—and this was what induced me first to suspect that more than mere stimulation took place. Looking at the medicinal influence of nitrate of silver in erysipelas, and various forms of ulcer, in which the existence of excitement to a greater or less extent cannot be denied, I think we shall be still further inclined to lay aside the theory of mere stimulation.

The previous causticity of the lunar caustic is most advantageous in many cases, as for example, in the application to chancres and in chronic ophthalmia, where the destruction of morbid growth is desirable before there can be any susceptibility of sedative impression. There appears but little doubt that the application of nitrate of silver to syphilitic sores, if adopted while the affection is yet local may preclude the necessity of constitutional remedies by destroying the centre of morbid action. Yet, on the other hand, the production of the sedative effect alone is often more advantageous, for where the organization is weak, the primary destructive causticity is badly borne, though despite that inconvenience, nothing has been hitherto substituted which will as completely answer the purpose as lunar caustic carefully applied.

The question now is—can the caustic stimulation be avoided, and a simple sedative action be instituted through the agency of silver?—to this I would reply in the affirmative! I would recommend the substitution of the oxide for the nitrate, which stands in the same relation thereto as the oxides of antimony and mercury do to tartar emetic and corrosive sublimate respectively. Thus we shall have a mild and manageable preparation, entirely devoid of causticity, which my brief experience leads me to hope will be found of high utility both as a local and internal medicament.

I have applied an ointment of oxide of silver with decided effect in the various stages of gonorrhœa, and with but little inconvenience, beyond what might be fairly attributed to the mere mechanical irritation of the bougie. Over the nitrate it has the great advantage of not producing the caustic irritation, by which, at the same time that the morbid secretion may be arrested by a process resembling tanning, of the urethral lining membrane, there is considerable additional probability that metastasis of the irritation will ensue. The application of the oxide of silver, on the other hand, may be resorted to so as gradually to subdue the disease. I would not, however, by any means recommend its employment during the very acute stage while much constitutional irritation exists, and subsequently only as an auxiliary to the usual medicinal treatment. In chancres, I am convinced that I have seen the most beneficial results attend the application of the ointment. I have often found the sanative effect surprisingly accelerated after the failure of other remedies, and its use is not attended with pain. It is the oxide of silver which exists in Mr. Guthrie's black ointment, named by some "*infernal*,"

though far from violent in its action, and I believe available to a much greater extent than usually supposed. His formula consists of ten grains of nitrate of silver, fifteen drops of solution of lead, and a drachm of lard. The oxidization is effected by trituration and exposure to the atmosphere and light. A much readier mode of preparing it is from the oxide itself. The lead promotes sedative action but is not essential to it.

We will now turn to the internal administration of silver. The use of the nitrate has been strongly recommended by many in nervous diseases of all kinds, and also in gastric affections, which are especially states of excitement, though of course constitutional debility may exist, as is often the case. With the strong conviction of the powerful sedative influence of silver, used externally, I could not doubt that the result of its internal administration would correspond from analogy with lead, of which the powerful influence over the nervous centres is indisputable. With respect to the nitrate, the risk of cutaneous discolouration has always been a great objection to persistence in its use, when it was deemed requisite for any lengthened period. Now the nitrate is a soluble salt, which is changed by the free hydrochloric acid of the gastric juice into a chloride: this is taken into the circulation, and when conveyed to the cutaneous surface is converted by its strong affinity for albumen and by the action of light into an oxide, which, however, cannot apparently permeate the capillaries, or we might expect it to be removed at a future period, as is the bile in jaundice. The oxide of silver, however, remains indelibly fixed; nor am I aware of any recorded instance of its perfect re-absorption. Again, the nitrate cannot be administered freely on account of its causticity, so that a full sedative impression is not obtained, perhaps, even when the mischief of discolouration is done. I think I have fair reason to expect that the above evils would be avoided by substituting the oxide for the nitrate of silver. The transmutation of the salt in the cutaneous surface would then be anticipated, and its transmission thereto prevented; for, as I just remarked, the cutaneous capillaries do not appear permeable to the oxide. We should, by freer administration, more readily impart the sedative impression through the medium of the nerves of the stomach, like that of other medicines of the same class. It was suggested to me that the oxide would probably be decomposed by the free acid of the gastric juice, but from experiments I have made, I do not anticipate such a result. Experience alone can test the truth of the theory—to that I appeal, and by it I am willing to abide. If it be successful, I shall have the satisfaction of adding to our store, a therapeutic agent of peculiar utility.

The readiest mode of preparing the oxide of silver is by acting on the nitrate with potassa; we may remark that the grey nitrate of silver contains some portion of the oxide. The admixture of two drachms of the hydrate of potass with half an ounce of nitrate of silver will yield about three drachms of the substance in question. Its internal administration may generally commence in the dose of half a grain. I have not carried it beyond six grains in the twenty-four hours. I have used the ointment of oxide of silver with the proportion of from five to ten grains to the drachm of lard.

I will now briefly refer to the cases in which the remedy has been used within my own knowledge during the last twelve months. The unsuccessful cases are noticed in common with the successful ones, in order to afford some direction as to when the use is likely to be attended with advantage. A greater aggregate of success has been obtained than might have been anticipated from a mere experimental inquiry, which strongly encourages us to its continuance.

Case 1.—Mr. J. had two syphilitic sores on the glans penis which could not be got to heal during four or five weeks, though a variety of local applications were resorted to. With the use of the oxide of silver ointment they healed in ten days. At a subsequent attack he himself suggested the use of

the ointment, which was used with the same satisfactory result. He did not take mercury.

Case 2.—Senor G. was labouring under exceedingly irritable chancre of phagedenic tendency. Black wash and ointment of the nitric oxide of mercury were ordered for him by Mr. Guthrie, who saw him with me in consultation. At the end of a fortnight he was worse rather than better. I then used the oxide of silver ointment, which effected the healing process in a week.

Case 3.—Mr. M. had syphilitic sores on the prepuce. Caustic was applied in the first instance, and subsquently the oxide of silver ointment daily. The chancres were well within a week, but he subsequently suffered severely with secondary symptoms.

In many other cases of syphilis I have since been constantly in the habit of using the ointment in question, and have generally found it answer better than any other local application. Also other medical men, who have been induced to try it by my recommendation, have expressed themselves much pleased with its efficacy.

Case 12.—M. P. æt. 50, had suffered ever since the cessation of the menses, at the age of 45, with gastric and uterine irritation, indicated by frequent vomiting, loathing of food, flatulency, sour eructations, constipation, pain in the back, sense of bearing down, and leucorrhœa. She was in a state of excessive debility. Had been under the care of Sir James Clarke and others, without deriving any benefit. In the course of a fortnight, with the use of mild aperients and half-grain doses of oxide of silver twice and three times a day, she was greatly relieved, and from that time rapidly progressed to recovery. She was under the care of my friend Mr. C. J. Phillbrick, of Colchester.

Case 14.—J. D. was first seen by me Sept. 3rd, 1839. He had been suffering with gastralgia during five months, and had derived but slight benefit from stimulants, opiates, or counter-irritation. He complained of constant pain in the scrobiculus cordis, violently exacerbated once or twice daily, the paroxysm sometimes lasting two hours, and of such intensity as to compel him to lay down wherever he might be. No sickness, pulse natural, bowels regular. A sensation of emptiness was experienced before eating, and soreness and fullness afterwards. He was ordered half a grain of the oxide of silver three times a day. On the 5th he expressed himself much relieved; there was less tenderness, and he felt as if something was removed from the stomach: the unpleasant sensation before and after eating was also much diminished. He went on favourably till the 19th, when the symptoms recurred, but were again subdued by the administration of the remedy in doses of a grain and a half three times a day. The man was a patient of Dr. Ryan.

Case 15.—Mrs. M. æt. 37, was affected with complicated and anomalous abdominal disease, of which, suffice it to say, diarrhœa and pyrosis constituted distressing symptoms, which were relieved in forty-eight hours by the use of oxide of silver. The pyrosis had existed previously for three months. She was seen twice by Dr. Todd.

Case 16.—Mr. L. æt. 44, had been for some years on and off affected with pyrosis, gnawing pain in the stomach, and various other dyspeptic symptoms, which all ordinary means failed in alleviating. Mr. Dernnet, of Storrington, Sussex, whose patient he was, reported him completely relieved with the oxide of silver.

Case 17.—T. D. had suffered at times for the last five years with severe gastralgia, generally occurring towards autumn. There was constant aching and tenderness in the region of the stomach. He also complained of nausea, and at times a quantity of clear water was thrown up. Anodynes, bleeding, calomel and opium, stomachics, bismuth, and counter-irritation were in turn resorted to without benefit. After three months, oxide of silver was prescribed

and from it complete relief was speedily obtained. Dr. Todd saw this patient two or three times.

Case 18.—Jane W. æt. 25, had been affected with occasional pain, of a gnawing character in the left hypochondrium for the last three years; it sometimes came on very violently, but without reference to the stomach being full or empty, and has been much worse for the last *few* weeks. Bowels regular, and general health pretty good, but "the pain wears her out." At the expiration of three weeks complete relief was afforded by administering the oxide of silver in half-grain doses twice daily, and she had become much stronger and more cheerful. She was a patient of Dr. Golding Bird, at the Finsbury Dispensary.

[Several other cases are likewise related, in some of which it failed, and in others was successful. It was successful in relieving pain in the left side, in establishing the health of weakly and hysterical subjects, in restraining diarrhœa, in hæmorrhage from the bowels after confinement, in profuse menorrhagia when the discharge came away in clots, &c.

Mr. Lane ends his interesting paper by the following observations:]

In relation to the above cases the following brief considerations may be advanced. The oxide of silver is entirely devoid of causticity, its local application occasioning no pain, a valuable fact in reference to its internal administration. The remedy appears beneficial in various nervous affections, when they have become idiopathic, that is to say, when the cause, whether originally seated in the stomach, uterus, spinal cord, or other viscus is removed, and the impression alone remains behind. There are no cases in which the oxide of silver is so rapidly beneficial as in cases of idiopathic gastric irritation, whether evinced in pyrosis, gastrodynia, or want of relation between the stimulus of food and the action of the stomach; but if organic change have taken place in the organ, the same benefit is not to be anticipated. In obstinate diarrhœa and hæmorrhages I am greatly in hopes that the silver will be found analogous in its action to lead—as efficacious, but milder and more manageable in its effect; this, however requires much further trial. It would be unfair that the merits of the oxide of silver should be at all suffered to rest on its efficacy in epilepsy, of which we are well assured that the great majority of cases depend on organic change, which the medicine cannot influence. In reference to its utility in epileptic cases, all that can be said is, that if, as I consider, the oxide of silver will not produce a discolouring effect on the skin, the utmost advantage that can be expected from the dangerous administration of the nitrate may be safely and fearlessly attained by the substitution of the oxide.

I shall conclude by adducing the evidence on the subject which has been kindly afforded me in written communications.

Dr. Clendinning informs me that,

"The oxide of silver has, so far as tried at the Marylebone Infirmary, appeared to exert an influence in epileptic and gastralgic affections similar to that long attributed to the nitrate of silver. The particulars of two or three cases in which the medicine appeared to act decidedly beneficially, have been communicated to Dr. C. by the resident officers, and other cases have been mentioned to him by the same gentlemen in which more or less relief seemed to attend the use of the remedy."

Dr. Ryan writes thus:

"I have tried the oxide of silver in very bad cases of epilepsy I think with some benefit. From these I am disposed to think that it may prove a valuable remedy, but my experience is at present too limited to justify a positive conclusion. It had a very decided effect in intense gastralgia."

Dr. Golding Bird makes the following observations:

"From the experience I have had in the administration of the oxide of

silver, I have formed a high opinion of its value as a therapeutic agent; not from its possessing any marvellous specific power, but from its tonic, and to a certain extent, sedative properties, rendering it, as far as I have seen, a useful remedy in several forms of neuralgia, and especially in certain cases of dyspepsia, attended with irritable stomach and pain in the viscus after taking food, when the secretions of the liver and intestines have been corrected as much as possible by the careful administration of alteratives. The oxide of silver appears to me to possess the good qualities of the nitrate without its inconveniences, and to exert a more directly sedative action than that salt; in which property indeed it approaches the acetate of lead, at least if the effects of its administration in menorrhagia can be admitted as sufficient grounds to justify this conclusion."

Medico-Chirurgical Review, July, 1840, *p.* 289.

7.—UNFERMENTED BREAD.

The profession is aware that Dr. Whiting, a few years ago, took out a patent for bread prepared without yeast, by combining muriatic acid and carbonate of soda, so as to produce common salt in the dough. From some cause or other Dr. Whiting's bread did not take with the public, though it certainly was a wholesome composition for weak stomachs. Mr. Dodson, of Blackman street, Southwark, has much improved upon Dr. Whiting's formula. We have been using his bread, prepared in the same manner as Dr. W's., but with larger proportions of the muriatic acid and soda, for some months, as have several of our friends and patients. We can speak to its wholesome qualities, and to the ease with which it is digested, without turning acid on the stomach. We recommend our dyspeptic friends to try it—especially the brown bread, of which all our patients highly approve. Mr. D. has extended the same process to several species of pastry, and, we think, with much success.

Medico-Chirurgical Review, July, 1840, *p.* 285.

8.—OBSERVATIONS ON THE OIL CONTAINED IN ERGOT OF RYE.

By Samuel Wright, Esq., B.A. V.P.C.S.E., &c., &c.

[Mr. Wright in a series of interesting experiments seems to prove that the oil which he procured from ergot of rye possesses the same activity as the crude drug. On injecting the oil into the arteries and veins of animals the same effects were produced as by the simple infusion; exactly the same influence was exerted upon the brain and spinal cord, subject to all the modifications which attend dilute and concentrated doses: even breathing the vapour from the oil in a close room, had its peculiar effects on the system, as experienced by Mr. Wright himself, who states that on such occasions he felt "a curious tingling sensation over his limbs, distressing lassitude, irritability, and giddiness." Having ascertained that the oil possesses the same physiological action as the crude drug, he proceeds to state that its therapeutic action is also identical. He says:]

I have employed it in nine different instances, where the exhibition of ergot was peculiarly indicated, and in all of them it answered most satisfactorily, In four of these cases, in which the contractions of the uterus were sluggish and inperfect, yet the *os uteri* sufficiently dilated, it produced very increased action in six minutes, and delivery speedily followed. In three similar cases, the same effect was produced within ten minutes succeeding the exhibition

of the drug, and the termination was equally favourable. In another instance, where the pains had ceased without any evident cause, and the progress of labour was interrupted, it restored the contraction of the uterus in thirteen minutes, and within half an hour an easy and a safe delivery was effected. In the ninth example, the pains were for the most part suspended, from sudden terror with which the patient was seized; the pulse had risen from 75 to 130 beats per minute, and an alarming irritability of the whole system was prevalent. The administration of the oil in this case reduced the pulse to 90 in less than ten minutes; the irritability in a great measure subsided, and during a state of calmness, the uterine contractions were vigorously and steadily renewed, and within an hour from the time at which the dose was given, parturition was fully completed.

Dr. J. Y. Simpson, Professor of Midwifery in the University of Edinburgh very kindly tried the oil of ergot, and his opinion of its efficacy is thus expressed, in a communication with which I was recently favoured by him. "I have repeatedly employed your preparation of the ergot, and have always preferred it of late, because it has appeared to me to act with more precision than the infusion of the powder, and its dose is more easily regulated. I have used it both in cases of lingering parturition, dependent on deficient uterine contraction, and also in instances of *post partum* hæmorrhage. In one case of the latter, where the uterus relaxed, again and again, after the repeated introduction of the hand into its cavity, I gave your preparation in a large dose, (60 drops and repeated,) and very shortly afterwards the uterus began to contract firmly, and the woman, who was much reduced by the flooding, complained of the severity of her after-pains."

Besides the cases already mentioned, I may state that I have twice administered oil of ergot in troublesome diarrhœa, and with very marked advantage. The dose was 10 drops every three hours, and both the patients were cured on the following day. It must be understood, however, that this remedy acts simply by subduing an inordinate irritability of the intestines, for it is not physiologically an astringent.

I have also repeatedly given it in cases of irritability and cramp of the stomach, and have never known it fail to relieve or remove the symptoms.

The dose of the oil is from 20 to 50 drops. It may be given in any convenient fluid vehicle, such as cold water, warm tea, or weak spirit and water. The two latter I have found to be the most serviceable; for the result of some comparative trials which I have made has been, that the action of the oil is best secured by administering it in a dissolved or tolerably diffused form.

As an official article, the oil of ergot possesses many advantages which are wanting to the crude drug. It is of easy preparation and may be kept for any length of time. I have a specimen which has been prepared for four years, and on trying it the other day, I found its activity to be in no degree diminished. The rules to be observed in its preservation, are simply to keep it in a well-stoppered bottle, and in a cool, dark place. An elevated temperature will volatilize it if there be any opening for its escape, and if not, there is produced deep discolouration. The prolonged action of sun-light has a similar effect. In either case the strength of the oil is diminished.

It is more easily and readily given than an infusion of the grain; it has a much less disagreeable taste, and operates with greater rapidity. It has also the very desirable advantage of rarely producing sickness. The nauseating effects of the common infusion are frequently complained of; and not seldom have they been a means of its popular condemnation. But the oil is in a great measure free from this objection. I have never known it to produce sickness or vomiting, and similar has been the experience of my medical friends.

I have found this oil a valuable external application in cases of local rheumatism. I have tried it in three instances, and in all of them it has proved

curative. The affected part should be well rubbed with it for a quarter of an hour, night and morning, until relief be obtained. It is one of the best remedies with which I am acquainted for the cure of toothache. I have repeatedly known it subdue the pain when creosote has failed. But, perhaps its greatest value, as an external application, is in the arresting of hæmorrhage. I have often wounded small arteries in dogs and rabbits, and subdued the bleeding completely with a drop of this oil. Hæmorrhage from the jugular and femoral veins has been similarly arrested. The troublesome bleeding which sometimes follows the extraction of a tooth, and leech-bites, it is equally efficient in stopping.

In a severe case of epistaxis, I arrested the hæmorhage, by injecting up the nostrils equal parts of very dilute spirit and oil of ergot; and I have little doubt that in the severe cases of flooding which succeed delivery, the injection of this oil diffused through water into the uterus, would be productive of the happiest results.

[Mr. Wright gives us an account of the way in which the oil may be procured as follows:]

If ergot of rye, in a state of fine powder, be heated in a retort, there distils over, a thick oily matter, having an offensive smell, a bitter acrid taste, and a colour varying from a light brown to a perfect black. This is the oil of ergot in an empyreumatic form, and the characters above expressed, are strong in proportion to the heat employed. It was thus separated by Vauquelin, and was consequently described by him as thick and rancid, having the appearance of fish oil; properties, which, as it will shortly be seen, belong not to it in its natural condition, and are only produced by its partial decomposition.

Another way in which this oil may be obtained, is by squeezing the ergot (previously reduced to powder, and placed in a canvass or a muslin bag) between two plates of iron, heated to the temperature of boiling water. As thus separated, the oil is more fluid, lighter in colour, and less offensive to the smell, than when prepared in the manner first described.

A third process, and a convenient one for ordinary purposes, is to digest the ergot in *liq. potassæ* at a temperature of 120°—150°, until a perfect saponaceous solution be formed. The liquid is then to be diluted with half its weight of water, exactly neutralized with sulphuric acid, and submitted to distilation from a saline or an oil bath. The product is white, adhesive, and fatty-looking, almost free from empyreuma, and nearly tasteless.

It may also be separated by digesting ergot in alcohol for some days, filtering the fluid, and then allowing it to evaporate spontaneously. The oil thus obtained, however, is not pure, owing to the alcohol being an active solvent of the osmazome and colouring matter.

The readiest and best, though unfortunately, the most expensive way of obtaining this oil, is by percolating ergot in a state of fine powder, with sulphuric ether. By allowing the ether to evaporate spontaneously, the oil of ergot is left in its purest form.

As thus prepared, it usually consists of two portions, the one, colourless and translucent, the other, having a reddish-brown hue. The latter character is an acquired one, and simply dependent upon the age of the ergot. In old specimens, the oil is coloured throughout, and often deeply; in recent ones, on the contrary, it is not unfrequently entirely free from colour.

Edinburgh Med. and Surg. Journal, July, 1840, *p.* 51—62.

9.—ON THE ACTION OF THE HYDRATED SESQUIOXIDE OF IRON ON ARSENIC.

By DOUGLAS MACLAGAN, M.D., Lecturer on Materia Medica.

[In our forty-second article of number one, will be found some very interesting remarks on the efficacy of the hydrated peroxide of iron, as an antidote to arsenic, and we here place before our readers more matter on the same subject as being confirmatory of what was before related. Dr. Maclagan commences by saying that,]

The hydrated sesquioxide of iron was first proposed as an antidote for arsenic by Drs. Bunsen and Berthold, of Gottingen, who published a pamphlet on the subject in Germany. The importance of the question led many experimenters, especially on the continent, to put its powers fairly to the test, and there seems little reason to doubt that when administered in sufficient quantity, it either arrests or totally prevents the action of the poison on animals.

It has been supposed by some that the oxide may prove preventive of the action of the arsenic mechanically, as charcoal has been found to do, by enveloping the poison, and protecting the stomach from its contact, and the large quantity in which the oxide requires to be employed, naturally favours such a supposition. It has been found, however, that the hydrated sesquioxide of iron has the power of removing arsenic from its solutions in water, and from this we are led to infer that it has really the power of combining with the poison, and rendering it insoluble. In order to remove the arsenic totally, a large amount of oxide requires to be employed. Mr. Brett did not succeed in doing so when he used eight or ten grains of oxide to one of arsenic; but Dr. Mackenzie removed arsenic completely from its solution, when he used the proportion of twelve grains of oxide to one of arsenic.

[Dr. Maclagan then relates experiments by which he proves that when the oxide is used in sufficient quantity, it fully answers the purpose, "and has the power of completely removing arsenic from its solution in water, and retains the arsenic with such force as to render it *a priori* probable that it should, from its insoluble condition be rendered inert." He also affirms that Mr. Brett was led to an opposite opinion from using the oxide in too small quantities. It will be observed by the following experiments that the *dried* oxide was not nearly so useful as the magma, sixty grains of the former being required for one grain of arsenic, while only about twelve grains in the form of magma were required:]

The oxide carefully dried at 180° was likewise tried, and was found to withdraw arsenic completely from its solution. Sixty grains of this dry oxide were found to remove completely one grain of arsenic, but it was obviously very inferior in power to what it had been when in the form of magma, for twelve grains of the dry oxide appeared to produce little or no diminution in the quantity of arsenic in solution, twenty-four grains even when left in contact for half an hour had not removed any considerable quantity, and it was not until thirty-six grains of the oxide had been used and left in contact for half an hour, that any very marked removal of the arsenic appeared to have been obtained.

Exp. IV. Being anxious to ascertain whether the oxide of iron was capable of removing arsenic from its soluble combinations, as well as from its solution in water, half a grain of arsenic in the form of arsenite of potassa was agitated with a quantity of the magma equal to about eight grains of the dry oxide. On applying the sulphuretted hydrogen test to the filtered fluid it gave a very indistinct trace of yellow. For comparison, one drop of a solution of arsenite of potassa, equal to only the sixtieth of a grain of arsenic, was

tested in an equal bulk of water, and gave a much deeper yellow tinge. It thus appears that the oxide of iron has the power not only of removing arsenic from its solution in water, but also decomposing arsenites—an effect which must be considered to be due to a real chemical combination of the oxide of iron with arsenious acid.

The oxide of iron thus appears capable of forming an insoluble, and, as appears from other experiments, inert compound with arsenious acid.

[Dr. Maclagan then proceeds to say:]

Having by these various experiments satisfied myself that the hydrated sesquioxide of iron in its different conditions has the power more or less of combining with arsenic and rendering it insoluble, I instituted a series of experiments to ascertain if possible with more precision in what proportions the oxide should be employed to remove the arsenic completely. For this purpose I prepared two solutions, the one of arsenite of potassa, the other of persulphate of iron, of such strengths that an equal bulk of each should contain respectively arsenious acid and sesquioxide of iron in atomic proportions. The solution of iron was purposely made with an excess of acid, in order that any yellow arsenite of iron which should be formed on mixing the solutions should be re-dissolved. The superabundant acid was then to be saturated by ammonia in excess, by which means I proposed to separate the oxide of iron in determinate proportion, and ascertain in what ratio it required to be employed, completely to remove the arsenic.

[And from several experiments he goes on to say:]

We learn that the state of combination of the oxide of iron and arsenious acid varies remarkably according to the relative proportions of these two substances. When the proportions are as atom to atom, an arsenite of iron is formed, which is soluble in ammonia and readily decomposed by boiling water, and the solubility in ammonia is increased when the arsenic is in the ratio of two proportions to one of iron. When the oxide of iron is to the arsenic as three or four to one, the compound is still partially soluble in ammonia and readily decomposed by boiling water; but when the iron is further increased in quantity, as when the ratio is eight or twelve to one of arsenic, not only is all the arsenic removed from the fluid, and the precipitate insoluble in ammonia, but the iron retains the arsenic with such force that it is hardly possible to separate it even by the affusion of boiling water.

[This interesting paper is ended by the following conclusions:]

That the hydrated oxide of iron is a real chemical antidote to arsenious acid, and that when it removes arsenic from solution and soluble combinations it acts by chemically uniting with it.

That it appears much better fitted for removing arsenic, when it has been precipitated by ammonia than when precipitated by potash; and that it answers better when in the state of a moist magma, than when dried at 180°, even though, when thus dried, it still retains a considerable per centage of combined water.

That thus there appears to be good grounds for believing that in the experiments on animals, and the cases in the human subject, in which it has been found to arrest the action of the poison, that it acted as a chemical antidote and not as a mechanical protection to the stomach; that the large quantities which have been found necessary are required not to protect the stomach mechanically, but to render the poison chemically inert. That, as far as chemical evidence goes, at least twelve parts of oxide prepared by ammonia and moist are required for each part of arsenic, and that when the oxide has

either been precipitated by potash, or been dried even at a low temperature, that about three or four times larger quantities are requisite.

Edinburgh Medical and Surgical Journal, July, 1840, *p.* 106—112.

The seven following cases seem to confirm all that has been stated with regard to the hydrated peroxide of iron being the safest, the surest, and the most easily administered of all the antidotes yet discovered for poisoning by arsenic.

Charlotte Leuz, 33 years of age, was taken suddenly ill shortly after dinner. M. Puchelt found her exhibiting all the symptoms usually attending a case of poisoning. There was violent vomiting, accompanied by acute spasms in the region of the stomach, pale face, prostration of strength, small feeble pulse, &c. She said she had dined at the house of a mason of the name of Bauer, with three young children, and that, about a quarter of an hour after dinner, she felt herself so ill that she was obliged to leave the house.

M. Puchelt immediately ran to Bauer's house, and found the three children lying on the floor, with sunk features and expression of great suffering. Their respective ages were fifteen months, three years and a-half, and five years and a-half. The youngest, which was yet at the breast, had taken but a few spoonfuls of the poisoned soup, and was not so violently affected as the rest. The others had partaken largely of it, and had vomited several times. The father, who had swallowed about two plates full, had returned to his work, but was soon forced to leave it, on account of acute abdominal pains. Severe vomiting soon came on, attended with spasmodic pain in the region of the stomach, with pale sunk countenance, feeble pulse, and great depression.

M. Puchelt learned that the woman Leuz had put by mistake into the soup a spoonful of rat-poison instead of flour. The rat-poison was prepared with flour, sugar, and arsenic, and had been left carelessly lying in the press. A large spoonful of the hydrated peroxide of iron was immediately administered to Bauer, and a smaller quantity to the children. He administered a similar dose to the woman Leuz.

Five minutes after the administration of the first dose Bauer vomited, when a second dose was given, soon after which he became more calm. The three children also ejected by vomiting the first dose, but the two youngest fell asleep a short time after the administration of the second. A third dose was given to Bauer after the lapse of a quarter of an hour, soon after which he passed a greenish-yellow stool. The spasmodic pains, and general uneasiness abated after this very considerably, and his colour become more natural.

The woman Leuz also vomited the first dose, but retained the second; shortly afterwards she had also a third dose, and, as she still complained a good deal in the evening, a fourth dose was administered. The eldest of the children, who had taken least of the antidote, was also complaining of uneasiness and pain, and was forced to take another dose of the hydrated peroxide of iron.

Next day Bauer was able to return to his work. His two youngest children were also well; but the eldest child, as well as the woman Leuz, still complained of uneasiness and occasional pains in the abdomen, and suffered much from palpitations of the heart. In the evening a purgative was given to both, and in a few days they were restored to health.

Chemical analysis showed the presence of arsenic in the rat-poison, some of which still remained. Arsenic was also detected in the soup, as well as in the matters vomited. The matters which were rejected after the administration of the hydrated peroxide of iron were also carefully examined, and

the arsenic was found to have united with the iron, and to have formed the arseniate of iron.

In another instance two children of 8 and 12 years of age, added by mistake a half spoonful of rat-poison to some sour kraut, which they recognised to be arsenic, but too late to prevent themselves suffering from its effects. They were shortly seized with all the symptoms of poisoning. Six hours after partaking of the poisoned food, the hydrated peroxide of iron was administered, and was soon followed by a complete cure.

Edinburgh Medical and Surgical Journal, July, 1840, *p.* 562.

10.—ON THE PRESENCE OF IODINE IN COD-LIVER OIL.

By M. Gmelin.

The oil prepared from the liver of the cod-fish has of late been extensively employed in practice, both in France and Germany, and the list of diseases in which its use has been found beneficial has been very much extended. The attention of chemists was, therefore, directed to this oil, to ascertain if possible, the principle upon which its efficacy as a remedy depended. Several years ago, Dr. Kopp, of Hanau, conjectured that it contained iodine; and in 1806, Hopfer de l'Orme ascertained, by chemical examination, that this conjecture was well founded. And, in 1837, M. Haussmann announced that, in one specimen of the oil, he had detected the presence of iodine. His experiments were subsequently repeated by others, but no iodine was detected in the oil subjected to examination. It was, however, afterwards ascertained that the oil in these last instances was adulterated, so that no conclusions could be drawn from them as to the presence or absence of iodine.

M. Gmelin was one of these unsuccessful experimenters; but on repeating the experiments with pure cod-liver oil, he easily detected the presence of iodine. He operated on 60 drachms of the pure oil, and obtained a saline mass, which, when acted upon by sulphuric or hydrochloric acids, struck a violet colour with a solution of starch, and had all the other usual reactions proper to a solution of iodine. When some of this saline mass was heated in a tube with peroxide of manganese and sulphuric acid, the violet vapour of iodine was at once apparent, and stained paper, which had been dipped in a solution of starch, of a blue colour.

M. Gmelin obtains the saline mass most easily by saponifying the oil with potash, neutralising with sulphuric acid, filtering, and crystalizing, when the sulphate of potash is got rid of. The residuary liquor is evaporated and calcined. Alcohol removes the salt of iodine from the other saline ingredients, and, on subjecting this to examination, the presence of the iodine is easily detected.

There is then every reason to believe that the cod-liver oil owes its efficacy to the presence of iodine; a fact which is sufficient to explain the high estimation in which it is held by some northern nations, and now, in many parts of Germany.

Journal de Pharmacie, and Edinburgh Med. and Surg. Jour., July, 1840, *p.* 251.

[This and the following article may be considered an interesting appendix to the article on the same subject to be found in our first number. Although iodine may have been discovered in this oil, we think with Dr. Taufflied that it exists in too small a quantity to be attended with the benefit which different writers have shown to accompany its use; and we cannot but consider Mr. Donovan's opinion as being the most correct, viz., that "its therapeutic qualities depend in some measure on its power of modifying the digestibility of the food, of rendering the whole mass more easily assimilable, &c."

In a short but interesting paper in the July number of the *Dublin Journal of Medical Science*, this able chemist has given us his opinion of this remedy more particularly. After giving an account of some of the cases mentioned by Dr. Taufflied, he says:]

I now proceed to describe the method by which I have obtained this oil, and to notice some circumstances, without attention to which I conceive that the internal use of it may produce some disturbance of the constitution. At all events we must lessen the repugnance which most persons would feel to the swallowing of fish oil, by procuring it free from all disgusting qualities so far as relate to smell, taste, and colour.

Every one knows that the livers of fish contain a great quantity of oil, deposited in cells. In all fishing villages on the sea coast a part of the occupation of the fisherman is the extraction of the oil. The livers, contained in an iron pot, are heated on the fire until their substance is broken down: the oily pulp is then thrown into a canvass bag, and drained with pressure. The *mare*, which remains in the bag holds much of the oil absorbed. A second heating and pressing separates much of it, but the produce is dark-coloured and strong-scented. Even after this, some of the oil is retained. The portion lost will be much smaller in quantity if the livers had been previously allowed to run into partial putrefaction: but in this way of proceeding, quantity is increased at the expense of quality, for the oil procured has a very bad smell. It is in this state that cod-oil is generally met with, and it is one of those known in commerce under the name of train oil. The livers of all other fish are also added in the boiling of British train oil, and the fat of the porpus, caught on some parts of the western coast of Ireland, contributes abundantly to the local produce. Common train oil is always in a state that indicates the putrescence of the materials from which it was procured, as well as the use of a high temperature in the process of extraction.

[After cautioning us to avoid too great a heat in the making of the oil, and especially not to allow the cods' livers to become partially putrescent before proceeding to extract the oil in hopes of procuring a larger quantity, he proceeds:]

The preceding facts and considerations shew that some caution ought to be employed in the manufacture of such train-oil as is intended for medical use, and that all kinds of it are not to be used indiscriminately. We must seduously guard against putrefaction and charring. I have made trials of the temperature, adequate to the extrusion of the oil, without any ill effect on its taste or its capability of resting lightly on the stomach, and find the best oil is afforded at 192°.

I proceed to describe the process. Take any quantity of livers of cod, throw them into a very clean iron pot, and place it on a slow fire, stir them continually until they break down into a kind of pulp: water and oil will have separated. When a thermometer plunged in the pulp will have risen to 192°, the pot should be taken from the fire, its contents transferred to a canvass bag, and a vessel placed underneath. Oil and some water will run through.

After 24 hours, separate the former by decantation, and filter it through paper.

This oil, thus prepared, is of a pale yellow colour; its smell is weak, and resembles that of a cod boiled for the table when in excellent condition. Its taste is bland, by no means disagreeable, and as might be expected is totally free from rancidity. It is very liquid. Its specific gravity in my trials was 0.934, although in all the published tables of specific gravities it is stated to be 0.923. In cold weather it deposits much setarine, and this ought not to be separated.

No objection can be raised against the internal use of this oil on the

grounds of delicacy. Let it be remembered that the cod's liver (the chief ingredient of which is the oil) is itself a delicacy: that it enters into a popular sauce used with the fish; and that it is cooked into several forms for the table. That it is nutritious, we have abundant evidence from the analogy of other fish-oils on which whole nations to a great extent subsist and are well nourished. Perhaps its therapeutic qualities depend in some measure on its power of modifying the digestibility of the food, of rendering the whole mass more easily assimilable, and of bringing it to that state which is best adapted for the nutrition of persons in the particular condition of health for which this oil is proved to be a remedy.

Thus, in preparing cod-oil fit for medical purposes, three chief things are to be attended to: the livers must be perfectly healthy; they must be as fresh as possible, the least putrescency being injurious; and the heat at which the extrusion of the oil is effected must not exceed 192°.

Dublin Journal of Medical Science, July, 1840, *p.* 359—365.

11.—ON THE HYDROCYANOFERRATE OF QUININA, A FEBRIFUGE OF GREATER POWER THAN THE SULPHATE OF QUININA.

By M. Donovan, Esq.

[It is well known that the sulphate of quinina as well as most other remedies often fails in the treatment of intermittent fever. When this is the case it is well to remember that there is another remedy not hitherto much employed in this country, but especially used and recommended by Signor Bertozzi, of Cremona, and Dr. Zacarelli, who had found it to succeed in those cases especially where the sulphate had failed.]

The following is given by Bertozzi as the most economical process for obtaining it:

One part of sulphate of quinina is to be triturated in a glass mortar to an impalpable powder. A part and a half of ferruginous prussiate of potash, previously dissolved in six or seven parts of distilled water, is to be mixed by careful agitation, and the whole exposed in a flask to heat, stirring the mixture frequently, until it arrives at the boiling point. In proportion as the liquid becomes transparent, there is precipitated to the bottom and sides of the flask a substance of a greenish-yellow colour having an oily consistence. Having then decanted the liquid portion, this substance is to be washed with distilled water, which will separate some sulphate of quinina that had not been decomposed, along with some other matters. Having accomplished the washing, and poured off the waters, the product is to be dissolved in very pure alcohol at 100° of Fahrenheit. The solution is to be filtered; the liquor which passes becomes muddy, and when evaporated, leaves a mass, confusedly crystallized in needles, the weight of which corresponds to three quarters of the sulphate of quinina employed. This is the *hydrocyanoferrate of quinina.*

The hydrocyanoferrate of quinina, when in small fragments, is of a pea-green colour; its taste is intensely bitter; it dissolves in cold, but better in hot alcohol, and is precipitated almost entirely from the solution by water. In prescription, it would be an error to promote its solution in water by means of dilute sulphuric acid, as is done in the case of sulphate of quinina; the salt would be decomposed by this acid, and the solution would become blue. It ought not to be prescribed with tincture of cinchona, and consequently not with infusion or decoction. The dose, given by Doctor Zacarelli, was equal to three grains and a half troy, repeated according to necessity.

Although this febrifuge is precipitated by water from its alcoholic solutions,

it separates in the state of so fine a powder, and remains so long suspended, that it will answer for exhibition very well in this state. The following formula will be found convenient:

℞. Hydrocyanoferratis Quininæ grana quatuor, spiritus rectificati drachmam. Solve. Adde Aquæ, vel,

Misturæ Camphoratæ drachmas septem. Misce fiat haustus, ut res nata sit, phiala prius agitata, sumendus.

In pills.

℞. Hydrocyanoferratis Quininæ grana viginti quatuor, Mucilaginis gummi Arabici, q. s. fiat massa quam divide in pilulas duodecim.

These pills will be of a proper size, and two of them will constitute a dose; to be repeated according to the discretion of the prescriber. I believe that the liquid form is preferable to the pilular, unless under peculiar circumstances.

It is a remarkable fact, that a medicine possessing febrifuge power superior to that of sulphate of quinina, should not have found its way into the practice of the physicians of this country; this indeed is not the only instance, in which the contributions of scientific pharmacy to the healing art, have been neglected in the British Isles. My duty, however, terminates with submitting the article to the consideration of the medical public.

Dublin Journal of Medical Science, July, 1840, *p.* 440.

12.—STRYCHNINE IN NEURALGIA.

By Dr. Pidduck.

[Dr. Pidduck was first induced to try this remedy from the power which it undoubtedly has in many cases of epilepsy: and, as he supposed that many cases of neuralgia might be owing to the same pathological causes as paralysis, only that in one case the nerves of motion were affected, and in the other, the nerves of sensation—he saw no reason why strychnine should not act beneficially in one case as well as in the other. He says:]

It is to the utility of strychnia in another class of diseases—the various forms of *neuralgia*—to which I desire to invite attention. Mine was first directed to the employment of strychnia in a case of this description, from conceiving that neuralgia might be occasioned by a diseased condition of the nerves of sensation, similar to that which occasions one form of paralysis in the nerves of motion, viz., an injected state of the capillary vessels of the investing membranes of the nerves. That the loss of voluntary power in the one case, and the acute pain in the other, proceeded from one and the same pathological condition—an alteration in the relative state, or in a deviation from the normal relation, which ought to subsist between the capillary vessels and the nervous fibrils.

It is probable this injected state of the capillaries may be owing to the altered qualities of the circulating fluids, which occasion the loss of tone in those minute vessels; and hence their admission of the red particles of blood. The first case in which I tried the strychnia was in that of a maid-servant, who suffered from neuralgia of the infra-orbital branch of the fifth pair. The agony was dreadful. After a variety of means had been employed without any alleviation, strychnine, in the doses of a twelfth of a grain, mixed with sugar, was prescribed. After the third dose relief was obtained. The pain

entirely ceased before a grain had been taken. In a few days the pain returned in a slighter degree; the medicine was resumed with the same good effect, and there has been no relapse.

[He then relates five other cases where different nerves were affected, and in which the *twelfth* of a grain of strychnine was generally given three times a day, and invariably with success. In one case the infra-orbital nerve was affected, in another the sciatic, and in the fourth case there was both neuralgia and loss of power in the arm and hand. Dr. Pidduck concludes his remarks as follows:]

These six cases are insufficient to establish the efficacy of the strychnia in neuralgia; but the result has shown the power of the remedy over painful, no less than over paralytic affections of the nerves; and it has been so far satisfactory as to entitle the strychnia, in minute doses, to a more extensive trial in this most distressing class of diseases. As in cases of paralysis strychnia has only been found of use where there was no organic lesion of the cerebro-spinal centres, so in cases of neuralgia, no hope of benefit from strychnia is to be entertained, where there is any mechanical cause of irritation affecting the nerve at its origin or along its course. The difficulty of ascertaining the existence of such a mechanical cause oftentimes is confessedly very great. The only dietetic restrictions are careful abstinence from anything sour—vinegar, hard beer, cider, acescent wines, unripe and acid fruits, common salt in large quantity, and saline medicines.

The *modus operandi* of strychnia, besides its direct influence upon the nervous system, seems to be similar to that of all bitter tonics, increasing the appetite for food, promoting digestion, and as a consequence, occasioning constipation. But this is perhaps not to be regarded as a morbid condition, but as the effect of a more perfect digestion, and the absorption of a larger proportion of nutriment into the system.

It may be owing to the introduction of a larger quantity of perfectly assimilated chyle into the blood, that harmony is restored between the circulating fluids and the nervous system, and hence the benefit of the *diete blanche* in hysterical and other nervous disorders.

Medical Gazette, Aug. 7, 1840, *p.* 760.

13.—MEDICAL EFFECTS OF THE LIQUOR HYDRIODATIS ARSENICI ET HYDRARGYRI.

By M. Donovan, Esq.

[In a previous number of the *Dublin Journal*, Mr. Donovan gave some account of a new chemical compound, consisting of iodine, arsenic, and mercury; and the diseases in which it would be found beneficial, namely psoriasis, lepra, and lupus. He now presents to us the experience of some of the most eminent men in Dublin. Mr. Carmichael states thus:]

I have tried the liquor hydriodatis arsenici et hydrargyri, in five or six cases of lupus, and in one case of psoriasis, with decided benefit in all.

In one case of lupus, of ten years' standing, in which great deformity had been occasioned by the disease on the features of a young lady, on whom all the usual remedies had been tried, it produced most decided benefit, and seemed to put an immediate check to the progress of the malady. She is not yet perfectly well, but sufficient advantages have ensued to promise recovery.

In one of my lectures, reported in No. 61 of the Dublin Medical Press, I stated the case of a man who had lost a great part of the vomer, and in whom much deformity had consequently ensued from an obstinate attack of lupus,

who in the course of a few weeks so far recovered, as to be discharged from the hospital apparently well. I perceive there has been no relapse of the disease, as he was told to return to the hospital should any suspicious symptoms make their appearance.

In another case, of a respectable shopkeeper, in —— street, in whom the nose was affected, and not only the turbinated bones but the vomer had exfoliated, a perfect recovery took place after a three months' perseverence in the remedy, during which he was not prevented from attending to his usual occupation.

In the case of Mr. ——, affected with psoriasis, although the disease had existed for years, most decided benefit generally followed the use of the preparation in question, so that nothing but discolouration of the skin remains where scaly spots were formerly manifest. Some other instances of psoriasis and lepra also occurred, in which benefit followed its use, but we are still trying it, in similar cases to those I have detailed, in the Richmond Hospital, and you shall know in due time the result.

[Dr. Graves then relates the following very striking and inveterate case.]

Mary Cullen, a married woman, aged 60, had been affected with psoriasis for fifteen years; the disease, at first mild and confined to a few parts of her body, gradually extended over almost the whole surface of her skin; and when she was admitted into Sir Patrick Dun's Hospital, it presented all the marks of a most inveterate affection. On the 10th of November she commenced the arsenical compound, taking daily three draughts, each containing half a drachm of the liquor. After some days the medicine was discontinued as it disagreed with both the stomach and head, but it was shortly afterwards resumed in smaller doses; and when the patient's constitution had become accustomed to it, the dose was gradually augmented, and finally she took half a drachm of the liquor four times a day for about two months, with the exception of two weeks, (at different periods,) during which the above mentioned symptoms caused its exhibition to be intermitted. The effects of the remedy exceeded my most sanguine expectations, for it caused an almost total disappearance of the cutaneous eruption; it is true that after the medicine had been for a short time discontinued, the eruption again began to increase, and, consequently, we were once more compelled to resume the use of the arsenical compound. Unfortunately my period for superintending the clinical wards of Sir Patrick Dun's Hospital expired shortly afterwards, so that the experiment was left incomplete; it had, however, lasted long enough to leave no doubt in my mind as to your remedy being a powerful agent, of most useful application in chronic dieases of the skin.

[Dr. Irvine's case is the most interesting, not only on account of the virulence of the disease, but also because he had tried in different cases the separate ingredients of the liquor hydriodatis arsenici et hydrargyri without their having gained his confidence. In relating his case he says:]

On examination, I found his legs and arms thickly covered with large spots of psoriasis, much inflamed and very itchy. He said they were increasing rapidly in number, and that some had made their appearance on his body and forehead during the last few days.

I directed that he should be blooded to twelve ounces, and ordered him some aperient medicine which he was to continue for a week. These means afforded him some relief; the eruption was less itchy and less inflamed. I directed him to continue the aperient medicine, and to take twelve drops of liquor potassæ three times daily.

It would be tedious to relate the entire history of this case, it is sufficient

to say, that he took various remedies, Dulcamara and Plummers' pill among the number, without any benefit, unless temporary relief from itching.

From the experience of many cases which I had treated without permanent benefit at the Maison de Sante, with Fowler's solution of arsenic, iodine, and mercury, separately administered, I was inclined to doubt their efficacy; I therefore determined to try the compound of these three, which you, in conversation with me about this time, had mentioned. My patient had now been upwards of three months under treatment, and to say the truth was little the better for all the medicine he had taken. He was most anxious to try anything I could recommend, and this anxiety was most fully participated in by his wife, who had now been banished upwards of four months *de thoro marito*. On the 11th of February we commenced the solution, on which day I gave you an opportunity of seeing this gentleman, and examining his skin, in order that no doubt might exist as to the extent the disease had acquired.

He took a draught containing 3ss. of liquor hydriodatis arsenici et hydrargyri three times a day from this date to the 28th of April. Twice during that period I found it necessary to stop the medicine for two or three days, and to give an opening draught, from his having complained of headache and sickness of stomach.

On the 28th of April you again examined him, and the disease was quite cured, nothing remaining but a stained appearance of the skin. It appears then that during the period mentioned he took 114 draughts: the total quantity of the liquor taken was seven ounces and one drachm; and when we calculate the quantity of white arsenic contained in all, we shall find it to be about seven grains, with fourteen of protoxide of mercury, and forty-four of iodine acidified.

Mr. Cusack states a new and different application of the arsenico-mercurial compound, which he employed with considerable success. He found that venereal eruptions rapidly yielded to scruple or half drachm doses three times a day, that is to *one quarter of a grain* of protoxide of mercury, and one-eighth of a grain of arsenic, or thereabouts, in the twenty-four hours. This indeed is a very small quantity of mercury to effect a rapid cure with: no one will deny that the less of it that will answer the purpose the better for the patient: and here again we perceive the effect of chemical combination, assisted no doubt by solubility. Mr. Cusack writes:—

"I have unfortunately omitted to make notes of the cases in which your valuable remedy, the liquor hydriodatis arsenici et hydrargyri, was administered, and am only able to state generally, that I have used it freely in secondary venereal eruptions, both papular and scaly. I found the eruptions yield rapidly to its administration in the dose of one scruple to two, three times each day. In two instances the mouth became tender, and a slight salivation followed: but in no case have I observed any unpleasant consequence, even when taken in larger doses."

[The following case was under Sir Henry Marsh, and is reported by Dr. Burton.]

James O'Brien, æt. 12, admitted September 14, 1839, into Steevens's Hospital under Sir Henry Marsh, labouring under a disease having the character of impetigo figurata, of strumous origin, covering the face, chest, arms, and thighs; but particularly well marked at the flexures of all the joints. Has been subject for many years to chronic bronchitis, with severe paroxysms of asthma. Curative means were employed, attended with more or less success; but whenever a mitigation of the cutaneous affection occurred, the cough and asthma returned with violence. Means having been employed to alleviate the bronchitic affection, Sir H. Marsh considered this to be a suitable case for an impartial trial of the solution of arsenic, mercury, and iodine, (brought

before the profession, and prepared by Mr. Donovan), with a view to the removal of the skin affection. The dose administered was fifteen minims twice a day, increased gradually to one scruple, and finally given in half drachms. This mode of treatment was cautiously pursued for somewhat less than a month, with a gradual amendment of the cutaneous disease, which entirely disappeared, without aggravation, but rather amendment of the bronchial irritation. After a short stay in the hospital, the disease reappeared with all its former characters and again yielded to the same treatment. It reappeared a third time, and the remedy was exhibited in larger doses, and steadily increased until the patient was taking half an ounce of the preparation during the twenty-four hours, in divided doses. Its use was now attended with very mild insalivation, as well as gradual and total disappearance of all the symptoms both cutaneous and pulmonary. After remaining a short time in hospital he was recommended to go to the country, and left the hospital very much improved in his general health.

Dublin Journal of Medical Science, Sept. 1840, *p.* 98.

14.—PNEUMONIA TREATED WITH SPIRITS OF TURPENTINE.

By James Martin, Esq., Mayfield, Portlaw.

[Mr. Martin relates the case in which he was so successful, by means of this remedy, as follows:]

I was called on this day (May 3rd, 1840,) to visit Mary Slattery, aged 25. I found her in an advanced state of pneumonia—severe dyspnœa—respiration 40—pulse 120—a short hard cough, accompanied by dark brick-coloured sputa—tongue white, loaded—bowels confined—dull sound on percussion over the entire of the thorax, excepting a small space, of two inches in diameter, beneath each clavicle. Here the respiratory murmur, which was elsewhere absent, was of a loud mucous character. She had been attacked six days before with rigors, and pains in her chest, and having been treated solely with whiskey punch *to drive out the cold*, her present state was extremely alarming.

[Bleeding and calomel were of no avail in arresting the disease—the pulse rose to 140, the lips and cheeks were livid, and eyes sunken, with slight tracheal rale.]

Thinking the patient so near death, that it would be fruitless to wait for the action of mercury, and at the same time wishing to afford her any chance that remained, I determined to have recourse to brisk doses of turpentine, which I had seen used with success by my friend Dr. Mackesy, of Waterford, in cases of pneumonia which resisted mercury. I therefore prescribed the following mixture:—

℞ Spt. terebinthinæ rect., ℥ij.; Vitelli ovi dimidium.; Aquæ rosarum, ℥vss.; Tinct. opii., 3i.: Fiat mistura cujus coch. duo magna sumantur 3tia q. q. hora.; Emplast. lyttæ sterno.

May 5th. I found the patient much easier—respiration 40, less laboured—the cheeks have lost their livid hue—but the lips are still of a dark purple—pulse 118, softer, and fuller—tongue still loaded—she had six copious watery stools during the night, with a copious secretion of urine—two inches below the clavicle, there is an audible and distinct crepitating rale—sputa still dark-coloured—blister vesicated well—she has finished the mixture—complains of slight strangury.

To have the mixture repeated, camphor mixture being substituted for the rose water.

May 6th. I was surprised to find an extraordinary improvement since yesterday—respiration 34, free—slept well during the night—her countenance resuming its natural appearance—the crepitating rale can be heard as far down as the right mamma, and in the left axilla—expectoration profuse, but slightly streaked with blood—frequent watery discharges from the bowels complains very much of pain from strangury.

Dublin Medical Press, Sept. 2, 1840, *p.* 150.

[The patient recovered rapidly and without relapse.]

15.—THE ESSENTIAL OIL OF VALERIAN, A REMEDY IN NERVOUS AND HYSTERICAL AFFECTIONS.

By W. R. Gore, Esq. Limerick.

[The valerian root is no doubt a valuable remedy, but owing to the length of time which frequently elapses before any good effects are produced, and the large quantity which has to be given, we hail with pleasure any substitute; and this we have in the essential oil, according to Mr. Gore.* Mr. G. proceeds as follows to relate his experience and views of this agent:]

In as much as my own experience is concerned, I can say that the oil of valerian is a powerful remedy, to relieve or remove those functional derangements which arise from lesions of innervation, existing independent of organic alterations—when such states are unaccompanied by a partial or general plethora, and do not derive their existence from acute inflammation; and that its effects may be much increased by the judicious admixture of other appropriate remedies adapted to existing complications of derangement—as, for instance, its combination with the *citrated aromatic wine of iron*† in chlorosis, accompanied with hysteria, or in any of those anœmic conditions of organs or of the system, which so frequently give rise to complicated derangements of innervation, whether these arise from loss of blood, or from a primary defect in the process of sanguification.

On the other hand, where hysteric symptoms arise out of uterine or gastro-enteritic derangement of *a sthenic character*, or from any *similar* appreciable disturbance, such causes may be subdued by appropriate means, before the balance of harmony of the impaired functions be attempted to be restored, by valerian, or by tonics, or by any other means; and in this state the first proposed is a powerful means of accomplishing the end in view.

Again, there can be no doubt whatever, but that when the secretions continue long impaired, from whatever form of organic disturbance, that the existence of this state is frequently the source of a reflex action on the nervous system, by which its functions continue disturbed, though the original cause may have long since subsided—and this would appear to be the result of the good effects so produced upon the volume and character of the general circulation. In such a relation of things, the state of the secretions must, of course be carefully attended to; and for the relief of the nervous disturbance, the valerian, I have cause to know, will accomplish its own part, more especially if assisted by judicious diet, appropriate exercise, and good air.

[He then relates the case of a well-known lady, and accompanies his remarks with the following practical observations:]

I viewed her case as one arising from a lesion of innervation of an adynamic character, out of which the other morbid phenomena arose—the diminu-

*This essential oil was, we believe, first imported into Ireland by Mr. Stevenson, of the Limerick Medical Hall, and may at any time be procured from him.

† See Art. 10, of our first No.

tion in the animal temperature, the absence of the pulse, and the general tremor, as the result of the circulation forsaking the periphery, for an impeded action in internal organs; and the result of the treatment entirely confirmed this view.

A jar of warm water was applied to her feet—warm flannel to the surface, and a tea spoonful of the following mixture in a wine glass of water every hour, until relief followed:—

Mist. camphoræ.; Spt. ammon. aromat, a.a. ℥ij.; Ol. ess. valer. gutt., xxv. M.

She got a little warm wine whey occasionally.

After the second tea-spoonful of the mixture, the tremors entirely subsided, and on the surface becoming warm, soon after, she took the third. I removed the jar and hot flannels, lest she should be weakened by too much perspiration from the reaction. This was about three o'clock in the day, the remainder of which was undisturbed by suffering. A restless feeling of langour continuing, she got—

Some warm leaf-tea, and at nine o'clock a pill containing the eighth of a grain of morphine, one drop of oil of valerian, with some extract of hyosciamus.

She slept well, and when I called in the morning, I found her in the parlour, quite enlivened at the idea of being so much sooner well of this attack than of former ones, though she considered it more severe.

[Speaking of another case, he says:]

Soon after this time, I was called to the country to see a lady of wealth and importance, who laboured under many distressing nervous symptoms—disturbed rest, irregular bowels, impaired digestion, headaches, a partial palsy of the left arm, with nervous twitchings in the left side of the face, colicky pains across the abdomen, with much inflation of the bowels. Throughout the continuance of her illness the catamenia continued undisturbed. She was of a spare habit of body, and every indication of plethora absent. The dyspeptic symptoms were those which first called for attention, out of which I conceived, the nervous disturbance arose; but long after her bowels became regular, the evacuations healthy, and the appetite good, *her nervous symptoms remaining unaltered*, she was subjected to the influence of electricity, and of the following mixture she took a small tea-spoonful in half a tumbler of porter twice a day:—

Rhubarb root, sliced, ℥iij.; Chirayeta, ℥ij.; Coriander seeds, bruised, ℥iiss.; Bradishes' alkaline solution, ℥viii.

This was allowed to stand for ten days, and on being filtered, 16 drops of oil of valerian were added, which made a very good antacid, anti-spasmodic, tonic, aperient mixture, and from the use of which she derived much signal benefit. When this was out, all remedial measures were discontinued for a time. In consequence however, of some existing nervousness, she was desirous of taking the valerian in the shape of pills, and the following mass was ordered her, one of which she took at bed hour every night.

Quininæ, ℈i.; Moschii gr., i.; Pil. aloes comp. ℥ss.; Ol. ess. valer gutt. x. M. et divide in pil. xij.

From these she derived much benefit. They were again ordered, substituting ol. ess. carui. for the ol. valerianæ, in consequence of the latter being at that time a shilling a drop. The effects not being the same, she had to recur to the valerian, and in about six weeks all her symptoms subsided.

[It will be observed that in this case Mr. Gore used the *Chirayeta*, and as this remedy is not generally known, we would just remind the profession that in many cases of indigestion, and especially when accompa-

nied with an unpleasant giddiness after eating, this will be found a valuable remedy. The following is a good way of preparing and taking the infusion of chirayeta:—Add half an ounce of chirayeta to one pint of boiling water; let it stand closely covered for twelve hours, and then strain it through a fine scive, and pour it into a wine bottle in which has been put half an ounce of the subcarbonate of soda: this to be well shaken together. A wine-glassful of the infusion to be taken three times a day, one hour before each meal. A larger quantity of the above not to be made at once, as it does not keep good for many days. The herb may be procured at Messrs. Butler & Co.'s, herbalists, Covent Garden Market, opposite corner to Henrietta Street.

Mr. Gore ends his observations as follows:]

In the abdominal pains, and in that pain of the side peculiar to many young females, a combination of aloes, assafœtida, and oil of valerian, proves exceedingly advantageous.

I had one case of chorea, which, after a little attention to the bowels, derived inestimable benefit from a single drop of the oil, in a lump of sugar, three times a day. After about three weeks this young woman was quite restored. It occurs to me that this would be a very suitable remedy to drop into a carious tooth accompanied with pain, where inflammation of the fang was absent, but having no opportunities to test this since the idea occurred to me, I can only give it as a suggestion.

Dublin Medical Press, Sep. 2, 1840, *p.* 151.

16.—CAN THE COW BE IMPREGNATED WITH THE HUMAN SMALL POX?

[The answer to the above interesting question is to be found in the late very interesting researches of Mr. Ceeley, published in the last volume of the Transactions of the Provincial Medical and Surgical Association. In the report on this subject, we are informed that Mr. Ceeley,]

Resolved to attempt to ascertain whether he could, by inoculation, impregnate the cow with human small-pox. Twice he has succeeded in accomplishing this important object after many previous fruitless trials. His experiments were conducted in the presence of five medical men and one veterinary surgeon. He produced five vesicles on the cows, from which source several hundred patients have been vaccinated, who have exhibited all the phenomena of vaccination in the most perfect form and complete degree; there was no attendant eruption, nor any thing that could lead him to suspect that he had not in this manner propogated the genuine *Variolæ Vaccinæ*. He kindly transmitted portions of this lymph to the President of the Section, who immediately committed it to the care of Mr. Coles and several other gentlemen, in whose hands it produced the regular vesicles, which in every respect corresponded with those so beautifully deliniated by Dr. Jenner, in his first publication. This circumstance forcibly arrested the attention of every one who saw the vesicles, and that too, in several instances, though the source whence the lymph was derived was not known. The correctness of the vesicle formed by it, exhibits a marked contrast to that which we have seen produced by other virus now in use; and we fear that the local as well as general disturbance occasioned by the latter, so far from being a source of protection, will be found to be the reverse.

On the 1st of February, 1839, he inoculated with small-pox matter *(variola discreta)* of the seventh or eighth day, three young heifers; a fourth was at the same time vaccinated. The reporters limit their account of what happened to the first.

Mr. Ceeley made seven punctures and introduced fourteen points near the left *labium pudendi*, and on the same day inserted two setons with matter from the same object. On the ninth day after this process, he vaccinated the same animal on the right *labium pudendi*, with fifth, sixth, and seventh day's lymph from a child, in seven punctures with fourteen points; and below the pudendum in four punctures with eight points. On the tenth day after the insertion of the variolous matter, one of the punctures near the posterior margin of the left *labium pudendi* has assumed the form of the natural vaccine vesicle. By gently removing the central irregular crust, and carefully puncturing the cuticle, he was able, in the course of an hour, to charge thirty-eight points with lymph, and on the same and subsequent days to use part of it on children and adults. On the thirteenth day the small-pox vesicle was more inflamed and florid: this was the fifth day after the insertion of vaccine lymph, at which time all the eleven punctures were converted into effectual vesicles; from these he took fine clear lymph, and used it on children and adults. Both the variolous and vaccine vesicles subsequently ran nearly a parallel course; so that on the twenty-sixth day of the former, and on the seventeenth day of the latter, the scars of both appeared perfectly similar.

To obviate objections which might arise from the insertion of the vaccine lymph on the ninth day after the inoculation with the variolous matter, Mr. Ceeley re-inoculated a sturk on the 15th of February with small-pox matter of the seventh or eighth day, on the *labium pudendi*. He made eight punctures, which were deluged with the variolous fluid from capillary tubes. On the fifth day the four upper punctures were enlarged and elevated; the other four were less so. On the sixth day all presented the appearance of the vaccine vesicle. From one of them he took lymph with difficulty, and scantily charged thirty-nine points. On the eighth day, he again took lymph from the vesicle opened on the sixth. On the ninth day the vesicles were enlarging, and he again opened carefully the first vesicle and charged twenty points. On the tenth day the four lower vesicles were increasing, and from them he charged twenty-seven points. After this time the brown crusts appeared, and the disease gradually declined. This animal was subsequently inoculated both with variolous and vaccine matter, but no result followed.

The practice of inoculating the cow with vaccine virus taken from man was very early attempted. It is not to be overlooked that the difficulty of accomplishing this, is almost as great as that of inoculating the animal with small-pox. It succeeded, however, in the hands of Dr. Waterhouse, who, in 1801, impregnated one of his cows, and obtained from her a "crop of matter on the ninth day which produced the disease in the human subject to perfection." Mr. Fox, of Cerne Abbas, who has paid great attention to this subject, and seen the disease, as well among the cattle as on the hands of the milkers, has also successfully vaccinated the cow.

The same experiments have been performed at Passy, in the neighbourhood of Paris; the lymph found there in 1836, among the cows, has been recently again passed through the animal, and this is called retro-inoculation. Mr. Ceeley, too, has often been enabled to communicate the vaccine disease from man to the cow. He has observed that good human lymph, when transmitted in this manner, loses some portion of its activity; it rises late, and produces smaller vesicles, but ultimately *after successive inoculations on man*, it resumes its activity.

The reporters rightly designate this a triumphant conclusion of an investigation of more than fifty years duration, and the best monument to the sagacity of Jenner. They deduce from what has been done the following aphorisms, to which they entreat the attention not only of the profession, but of the public.

First, that cattle in many ages and different countries, have been afflicted with small-pox.

Secondly, that this disease among the inferior animals has simultaneously existed with the small-pox in man, and pursued its victims through every quarter of the globe; and that it exists at this time in Asia in a fatal and pestilential form.

Thirdly, that it appeared among the cattle in England in the year 1745, and again in 1770, and continued its ravages up to the year 1780; and that the local remains of this epizootic occasionally still show themselves with considerable severity.

Fourthly, that the casual transmission of this disease to the milkers in the dairies of Gloucestershire, and their subsequent immunity from human small-pox, first led Dr. Jenner to the investigation of this singular affection, and ultimately to establish it as a substitute for the more pestilential and fatal form of the disease.

Fifthly, that when the disease appears among the inferior animals in a malignant form, it produces, by inoculation, a disease of similar severity in man.

Sixthly, that as man has received this affection from the cow, so likewise has the cow received it from man.

Seventhly, that the direct inoculation of the cow with human small-pox, has procuced a mild and mitigated disease; and that such disease, reproduced by inoculation on man, accords entirely in its character, in its progress, and in its protecting influence, with the *variolæ vaccinæ*, as described by Dr. Jenner; thus irresistibly proving his fundamental proposition, that cow-pox and small-pox are not *bona fide* dissimilar, but identical, and that the vaccine disease is not the preventive of small-pox, but the small-pox itself, the virulent and contagious disease being a malignant variety.

Medico-Chirurgical Review, Oct., 1840, *p* 399.

[The reporters draw from Mr. Ceeley's observations the conclusion "that cow-pox and small-pox are not bona fide dissimilar, but identical, and that the vaccine disease is not the preventive of small-pox, but the small-pox itself."

Now as this view is entirely opposed by Dr. Gregory, physician to the London Small-Pox Hospital, we think it right to lay his views before our readers. It will be seen that this physician considers the pathology (but not the practice) of Jenner to be erroneous. He affirms that vaccination is not a kind of small-pox, but that cow-pox is a something which alters the human blood, and indisposes it to take small-pox, but it is not small-pox. Mr. Stuart of Kelso, is also of the same opinion, who says:]

Since 1816 small-pox has prevailed several times in Kelso and neighbourhood, giving me an opportunity of seeing much of the disease. In the autumn and winter 1834-35, it attacked a great number of individuals, vaccinated and unvaccinated, and from the experience thus obtained, I venture to draw the following conclusions: That vaccination affords but an imperfect protection from small-pox at all periods of life; that the protection becomes more imperfect as the individual advances in life; and that, at the age of puberty, the influence of vaccination, (provided it has been had recourse to in infancy,) nearly ceases, but, at any rate, in the majority of cases at the age of twenty, vaccination ceases to exercise any protective power whatever.

In consequence of the adoption of these views it became with me a matter of consideration, whether or not vaccination ought to be repeated at certain periods of life. I thought it ought, and especially at the age of puberty. I have, therefore, regularly recommended it for the last twelve years, and have generally found, as might be expected, that secondary vaccination was successful, just in proportion to the time which had elapsed from the first operation—cow-pox, in fact, modifying itself as it modifies small-pox.

I have had several satisfactory opportunities of verifying this in families in which I knew the greatest care had been taken with the previous operation, and the result was such that I could, from the appearances of the pox, have nearly guessed the respective ages of the individuals thus revaccinated. In a family in this neighbourhood in January 1835, I revaccinated four persons at the ages of 14, 16, 19, and 20. In the first the modification was considerable; in the second less; in the third still less; and in the fourth there was as perfect a cow-pox as I ever saw, and it went through all the various stages quite regularly. There was a difference, too, in the progress of the pox. The first came to a height on the fourth day; the second on the fifth; the third on the seventh day; and the fourth on the eighth day.

[Mr. Stuart then gives some important opinions of Dr. Gregory, who gives permission for his correspondence to be published. Dr. Gregory says:]

Will revaccination protect, and for how long? The true answer I believe to be as follows: The value of revaccination is in one sense proportioned to the effect produced. If revaccination produces a full eight-day-pox with areola, it stands *loco primæ vaccinæ*, and the individual may be said to open a new policy of vaccine insurance, dated from that period. On the other hand, if the revaccination produces little or no effect, (a mere irritated papula,) nothing is taken by the motion. The individual remains in *statu quo ante* revaccination. But then comes the question; will a modified effect serve to fill up the measure of vaccine protection decayed during the preceding ten, fifteen, or twenty years? This is the pinching part of the question. My persuasion is, that you cannot thus multiply degrees of vaccine protection. Two imperfect vaccinations do not, in medical arithmetic, equal one perfect one; no, nor three, nor four, nor twenty. Modified or imperfect revaccination therefore, in my estimation, $= 0$; they are worth nothing. They irritate the arm, and that is all. The constitution is uninfluenced by them. I may be wrong in this, and I am ready to correct the error, if it can be shown to be an error; but all my experience goes to this. The doctrine of proto and deuto-vaccinations will soon merge in that of trito, and ultimately (as time creeps on,) into poly-vaccination. Will a man be perfectly safe (that is to say) who is vaccinated (or subjected to vaccination) every year? Those who support the present fashionable theory and practice of revaccination will please answer this question.

I have now brought you to the point which I have been anxious to gain. I have never yet addressed any one, in writing, on the subject, and I now write to you on it, because I see that you have considered it well; that you have thrown off the trammels of Jennerian pathology, and are content to think for yourself. Observe, I say, Jennerian pathology, not Jennerian practice. I feel assured you do not view vaccination as a kind of small-pox. The term *variolæ vaccinæ* was incorrect in pathology. Cow-pox is a something that alters the human blood, and indisposes it to take small-pox. But it is not small-pox. A coating of gold secures our salt spoons from the action of chlorine; but gold is not chlorine. Small-pox after vaccination is not on a par with double small-pox. Small-pox after vaccination is a first attack of small-pox, and may be followed by a second some twenty or thirty years hence. Well, then, what is to be done to fortify the public mind in the matter of vaccine security? How long are we to go on thus showing annually or epidemically our practical distrust of vaccination? The sooner we come to a decision on the subject the better. There is one, and only one way in which this can be done. Not by revaccination, but by inoculation at distant periods from the date of vaccination.

[In the same correspondence Dr. Gregory states, speaking of the pathology of vaccination:]

Now as to the real pathology of vaccination. Jenner's theory must be given up, viz., that cow-pox is only small-pox in its mildest and most original form; that a man has cow-pox now instead of small-pox which he had formerly; that small-pox occuring after cow-pox is analogous to small-pox after small-pox. These three positions, the foundations of Jenner's notions, are, I believe, entirely groundless and imaginary. The true pathology of vaccination is altogether different.

Now, vaccination has the extraordinary power of giving to the human body the singular property of resistance to the variolous effluvium. Vaccination is not small-pox, but just the reverse—the antagonist principle.

What wonder, therefore, can it be, if time should demonstrate, that the power of resistance thus conferred, is confined within certain limits; as thus:—

1. The power of resistance is complete (both as to casual and inoculative admission) for the first ten years of life.

2. The power of resistance ceases in certain constitutions before it ceases in others.

3. The power of resistance given by the cow-pox ceases *quoad* inoculation before it ceases *quoad* the casual (or infective) mode of access.

4. The power of resistance is diminished by any great changes taking place in the human frame, whether brought about by puberty, or change of climate, or by a long fever; or lastly by gradual and insensible changes taking place in the system.

There may be many more laws affecting the general principle of resistance given by vaccination hitherto unsuspected. I believe there are. I see daily facts inexplicable on any known principle. For I wholly throw out of consideration Jenner's fanciful notions of vaccinatlon impeded by pre-occupation of the skin; of vaccination rendered imperfect by the virus being taken at too late a period; or the more modern notion, that too few vesicles are raised; or those few not developing a sufficient amount of constitutional fever. All this is mere unauthorised theory. Two or three good vesicles on the arm constitute vaccination. When small-pox subsequently occurs, do not then reason *ex post facto*, and say the vaccination was faulty, but find out what are the laws which limit the principle of vaccine resistance.

Jenner set us all so wrong by his term *variolæ vaccinæ*, that it is really difficult to get out of the false (because so well beaten) track. If he had wanted a short expressive term, it should have been *vaccinia antivariolosa*. We should then have set ourselves to study how far the anti-variolous power extended, and by what laws it is limited.

Edinburgh Med. and Surg. Journal, Oct., 1840, *p.* 381—389.

17.—OBSERVATIONS ON DIABETES.

By George H. Barlow, M.A. & L.M.; Assistant Physician to Guy's Hospital, and Senior Physician to the Surrey Dispensary.

[The views of Dr. Barlow and Dr. Maitland so nearly correspond with respect to the causation of diabetes, that we request the reader to turn to Art. 23, of our first number before perusing the following very interesting observations.

Dr. Barlow has here not only clearly explained his views of the causation, but has also pointed out scientifically some important objects of treatment, and especially the employment of ammonia; with respect to the causation he says:]

"Now, the urinary secretion," says Muller, "is the means of carrying.

out of the system decomposed and effete animal matter, such as urea and lithic acid, (the essential components of the urine,) superfluous saline matters, and, either in an altered state or in their original condition, foreign matters which have accidently entered the circulation." To this I would venture to add, that it is worthy of notice, that in the human subject, and the carniverous mammalia, both these essential components are highly azotized combinations; whilst in the graminivorous mammalia the place of the latter lithic acid is supplied by hippuric acid, a substance containing little more than seven per cent. of nitrogen: so that of the great depurating organs of the body, the office of the lungs appears to be, to separate carbon in the form of carbonic acid. The liver removes carbon, hydrogen, and nitrogen, but chiefly the former; so that it may be regarded as in great measure co-adjutive or supplementary to the lungs, but as having a superadded function of its own; the kidneys, again, separate carbon, hydrogen, and nitrogen, but principally the latter (as well as superfluous water;) so that they are in some measure co-adjutive to the former, but have a superadded function of their own; the skin, again, is supplementary to all the rest, but particularly the kidney, and has an additional function of its own.

Upon this view of the subject, we should expect that the office of one of these organs may be wholly, or in part, performed by one or all of the others; and, accordingly, comparative anatomy teaches us, that in the different classes of vertebrate animals, the developement of the liver increases in the same measure as the respiration diminishes; being at its maximum in fishes, at its minimum in mammalia; and having its mean amongst reptiles: whilst we learn from every day's experience, that when the bile ceases to be poured forth by the ductus choledochus, it makes its appearance in the urine.

The presence, therefore, in the secretion of one organ of a substance more nearly allied in its elementary composition to that of another organ, should rather be ascribed to a defective performance of function in the latter, than a perverted action in the former; or, in other words, the presence of a highly-carbonized product in the urine would indicate impaired function of any other excreting organ rather than of the kidney.

Hence the *a-priori* arguments to be drawn from the physiology of the kidney are opposed to the belief that the presence of sugar in diabetic urine is the effect of a morbid condition or action of the kidneys.

Again, what is to be inferred in reference to this subject from the pathology of other morbid conditions of the urine? or what do other morbid products indicate?

Not to encumber this communication, the object of which is more especially of a practical nature, with observations not bearing directly upon the subject before us, it will be sufficient for our purpose to remark, that of all the other morbid contents of the urine, there are none, except those which are component parts of healthy blood, the presence of which has been traced to disease of the kidney; consequently, the knowledge we possess of the pathology of other diseased conditions of the urine affords no *a-priori* reason for ascribing the presence of sugar in the urine, which is never found in healthy blood, to disease of the kidney.

It appears from the conclusions drawn by Woehler from his researches, "that all soluble, and not gasiform matters, which do not suffer decomposition in the system, are got rid of by the kidneys;" whence it is evident that sugar, being taken up into the blood, must necessarily appear in the urine. It has indeed been argued, that the quantity of sugar found in the blood of diabetic patients is not sufficient to account for the quantity in the urine. This objection can, I think, have little weight, when we consider how quickly many soluble substances, when introduced into the system, are expelled by the urine. Again, it appears that those matters which are prone to pass out of the system by any particular secreting organ are stimulants of that

organ; as is seen in the stimulant action of the neutral salts on the kidneys; whence sugar, being present in the blood, and being separated from it by the kidneys, must necessarily increase the flow of urine.

There remains one other condition of the urine to be noticed; namely, the diminished quantity of urea. This deficiency is, however, by no means certain; as it has been called in question by several very able chemists; amongst others, by Mr. Kane.

Indeed, I should be inclined antecedently to expect that it would be deficient in this disease; since nutrition and excretion being, in health, antagonist processes, it is not improbable that the diminution of the former by disease may induce a deficiency of the latter.

I think we can have little hesitation in ascribing the thirst and dryness of the skin to the continual abstraction of water from the system, owing to the diuretic action of the sugar. The hunger, again, appears to be the result of the emaciation, or rather atrophy; which is, in its turn, the consequence of the depraved condition of the nutrient fluid, the blood. The question, then, which remains to be determined, is, the origin of this alteration of the blood, and the probable seat of the morbid action upon which it depends.

The circumstance of the morbid ingredient being a highly carbonized substance might at first lead to the belief that either the lungs or liver, or both, were involved in its causation; and it is probable that they are more or less implicated; but the fact, that sugar has been discovered by Mr. M'Gregor in the stomachs of diabetic patients, in greater quantities than in health, even when such patients have been almost entirely restricted to an animal diet, affords a proof that the derangement in sanguification must take place when the nutrient fluid is in an earlier stage than that in which it is subject to the action of these organs; and that the primary disturbance may be traced to the primæ viæ.

In this disease the saccharine particles of the food are not changed in the stomach; whilst the starch, which most articles of vegetable diet contain in considerable quantities, not having its peculiar properties annulled, and its proneness to the saccharine fermentation being favoured by the warmth and moisture of the stomach, is converted into sugar, which, being readily soluble, is absorbed into the circulation.

It appears, then, that owing to a deficiency in the assimilating powers of the stomach, a lower organic product, sugar, is taken up into the system, in place of a higher organic product, albumen. This lower organic product is inadequate to perform the duties of the higher; and is, according to laws already referred to, respecting the action of the kidneys, removed from the system by those organs.

If this view of the subject be correct, the next inquiry is, what are the inferences to be drawn from it, respecting the treatment of diabetes. The first is obviously one, the correctness of which has long been acknowledged, and confirmed by experience; namely, the avoidance of all saccharine and amylaceous articles of food; the latter of which, from their tendency to saccharine fermentation, are, I believe, productive of as much mishief as the former. I have, however, little to add to what is generally received upon this point, further than to insist on the advantages of the cruciferous vegetables as articles of diet; the use of which is not only in accordance with the view taken above, but has received the sanction of many experienced physicians. Not only do greens, broccoli, turnip-tops, sea-kale, water-cresses, &c., tend to obviate the loathing which is often felt by these patients when restricted to an animal diet, but they exert a decidedly beneficial influence over some of the symptoms: and it will be seen, in a case to be related presently, the discontinuance of the use of greens was always followed by increase in the flow of the urine.

The next indication appears to be, to introduce into the stomach a highly

azotized substance, and at the same time, by a diffusible stimulant, to exalt, if possible, the assimilating powers of that organ; both which ends appear likely to be attained by ammonia.

I have generally found that under the use of the sesqui-carbonate of ammonia the function of the skin is generally restored; and although I have sometimes thought that it was aided by opium in bringing about this end, yet in some cases the same effect has been produced without the use of the latter.

Such exercise as the strength of the patient will enable him to take, and the use of a warm bath occasionally, where it can be obtained, are also valuable adjuvants. The accumulations which not unfrequently take place in the large intestines, and which are, I believe, but a consequence of the participation of the bowel in the general muscular debility, must necessarily impair those functions of the chylopoietic viscera which it must be our main object to restore. The union of a purgative with a tonic, which rhubarb affords, seems to point it out as the most eligible remedy in these cases: this I have generally exhibited, in combination with sulphate of potass; and aided its operation, if necessary, by castor-oil.

[The treatment of the following case in 1836, will serve as an example of the treatment usually adopted by Dr. Barlow. The name was Stanley, a shoemaker.]

His urine was sweet to the taste, and of sp. gr. 1.041. He was at first put upon the use of one grain of opium every four hours; some castor-oil being ordered occasionally, to regulate the bowels: the rules respecting diet, above laid down, being also enjoined. At the end of five days his urine was much diminished in quantity, but the specific gravity increased to 1.044: he was also at that time in a state of great prostration, which was perhaps in some measure attributable to the opium. He was then ordered to take six grains of the sesquicarbonate of ammonia, three times a day, in a draught containing one drachm of sp. lavend. comp.; and five grains of Dover's powder every night; by continuing which, the quantity of the urine was, at the end of eight days, reduced to twelve pints in twenty-four hours, and the specific gravity had decreased to 1.035: he also perspired moderately at night, and the thirst was much abated. I now increased the quantity of the ammonia to eight grains every four hours; under the use of which, the quantity and specific gravity of his urine rapidly diminished; and at the end of six weeks he had so far recovered his flesh and strength, that he considered himself well, and left the Dispensary. At the end of five weeks, however, he again presented himself; stating that his former symptoms had returned. His skin was harsh and dry; and he told me that his urine rather exceeded two gallons in twenty-four hours. He had lost flesh considerably since I had last seen him; but he was not so much emaciated as when he first came under my care: his tongue was clean, but moist, and his breath had the odour of hay. He was treated in the same manner as before: and at the end of two months he was again discharged, apparently in good health; his urine being about three pints in quantity, without saccharine taste, and of specific gravity 1.020. I ascertained that this man was in good health in the summer of 1839.

"It is remarkable," continues Dr. Barlow, speaking of this case and another related by his friend, Dr. Golding Bird, "that in the first of the foregoing cases, although the effect of the opium was to diminish the quantity of the urine, the specific gravity of that secretion increased; the disease remaining, in other respects, unchecked: whence it is to be inferred, that that medicine exercises no control over its essential and more important symptoms. It is indeed of service in allaying the secondary irritation of the kidneys; which is frequently produced by the diuretic action of the sugar, and which adds to the general debility of the patient, and is evinced by the pain

and weakness often felt in the loins. But when empirically administered, this drug may not only be useless, but even injurious: for in the second case, it is stated, that before the patient came under treatment, diminution in the quantity of the urine was always followed by headache and drowsiness; whence it is probable, that if the function of the kidney is suspended, and the sugar is not removed by them, it accumulates in the circulation in sufficient quantity to exert a depressing influence upon the system: and in such cases, the exhibition of opium would be doubly injurious, both by checking the secretion, by which a pernicious substance was being removed from the body, and also by introducing another narcotic poison in addition to that already in operation. When, however, the formation of sugar had been checked by the remedies prescribed by Dr. Bird, the diminution in the quantity of the urine, so far from being attended by the unpleasant feelings before noticed, was accompanied by marked improvement in the general health of the patient.

Guy's Hospital Reports, Oct. 1840, *p.* 282—297.

[Mr. Clay, of Manchester, relates three cases of this disease in which the tinct. ferri mur. seemed to exert a very beneficial influence, and if the malady does not return, seemed to cure. The following mixture was prescribed and continued for six or eight weeks:

℞. Tinct. opii, ʒjss; tinct. ferri mur., ʒji.; quinæ sulph., grs. vjii.; aquæ distil., ℥vj.
Capt. ʒj. ter die.

In the first case the urine was 9½ pounds daily, and highly charged with sugar.—*London Lancet, Oct.* 10, 1840, *p.* 85.

18—CARBONIC ACID GAS, AS A COUNTER-IRRITANT.

By Dr. James Johnson.

[In a discussion in the London Medical Society respecting the nature and value of counter-irritation, Dr. James Johnson makes the following observations. He says:]

While on the subject of counter-irritants, he would bring before the notice of the society one particular species of this remedy, which had come under his notice during the the last two or three years, when he had occasionally been on the continent. He alluded to carbonic acid gas, applied either as a local or a general external remedy. In some parts of Germany there were large peat-bogs, from which carbonic acid gas was evolved in very large quantities, and which being collected afterwards in reservoirs, was conducted by tubes into baths for general use, or into smaller tubes by which it could be applied to any particular part of the body. In the first mode of its application, the gas was admitted into the vessel from beneath, and slowly ascended until it filled the bath. The patient's body was entirely immersed, his head being protected by a covering fitting close to the upper part of the bath, admitting the head only through an aperture in its centre. When the gas was locally applied, it was conducted in tubes of various diameters, and with such variety of force as the case might require. He had tried the remedy both locally and generally; it acted in both cases as a powerful stimulant. Its first action was the production of a momentary sensation of cold, which was followed by a feeling of heat, which, when the gas was applied locally, was sometimes so intense as to be scarcely tolerable. Perspiration succeeded to these phenomena. The application of carbonic acid in this manner was stated to be of great benefit in a variety of chronic diseases, in which there was no trace of inflammatory action. It was beneficial in tic-doloureux, atonic gout, and rheumatism, and similar diseases. If the reports were to be

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London Lancet, Oct. 10th, 1840, p. 96.

19.—THE USE OF HYDRIODATE OF POTASS IN TYPHUS.

By Dr. MORRISON, Physician to the Newry Fever Hospital.

There is a condition in typhus fever which I shall endeavour briefly to describe, and which I think is very materially benefited by a medicine, that I believe has not hitherto been administered in any of the forms of that disease. The condition to which I allude, is marked by a dry, parched, brown or black tongue—by dark sordes on the teeth and gums—by an inclination to dark, fœtid discharges from the bowels—by a weak and compressible pulse—and by a tendency to the effusion of blood under the skin—in fact, by the ordinary signs of depraved secretions, of vitiated fluids, and of debility.

I think all parties will agree that derangement of the secreting and excreting functions takes place, as well as an alteration in the vital properties of the blood, in the course of every ordinary case of typhus fever. The dry, glazed, brown, or black tongue—the dark sordes about the lips and teeth—the fœtid and dark-coloured evacuations from the bowels and kidneys—the dryness of the surface of the body—together with the dark colour, and deficient coagulating power of the blood, and the great liability to livid petechiæ and vibices, &c., will, I think fully prove that position. In fact, I want to make it appear, that at a certain period of every regular case of typhus, the body is labouring under a condition, which is probably best expressed by the word cachectic. Now, if this be conceded, it will, I have no doubt, greatly assist me in procuring for the hydriodate of potass a favourable introduction.

Its effects are now very well known to be almost miraculous in many cachectic diseases; and I believe I might almost hazard the appellation of acute cachexy to low, idiopathic typhus.

All the secretions seem greatly improved by it—the tongue is greatly and speedily improved by it—the whole frame seems to recover vigour from its use. Whether its primary action is on the blood, I will not venture to say; but I cannot suppose that the benefit which is derived from its exhibition arises solely from its supplying saline particles to that fluid. Dr. Stevens,

as is well known, says that the blood is deficient in its saline ingredients, after a certain period has arrived, in cases of typhus fever; and that small and repeated doses of neutral salts are admirably calculated to remedy this deficiency, and by this means to cure the disease. However, as I have just said, I cannot think that the salutary effects of the remedy in question are produced merely from its supplying the blood with saline particles. Probably its action, like that of mercury, is chiefly directed to the capillary system, and if it be found, *like* that mineral, to act in an especial manner on the secreting and excreting systems, but *unlike* mercury, to give tone and vigour, its use in the latter stages of low fever, will be sufficiently obvious.

The dose which I have been in the habit of administering, is three grains every four or five hours, dissolved in a little water. Of course it may be given with wine, camphor, &c.

Dublin Medical Press, Oct. 21, 1840, *p.* 257.

[Dr. Stevens' saline powder, composed of eight grains of chlorate of potass, twenty grains of muriate of soda, and thirty grains of bicarbonate of soda, will be found to produce somewhat similar effects to those described by Dr. Morrison as resulting from hydriodate of potass. In those cases described as "marked by a dry, parched, brown or black tongue—by dark sordes on the teeth and gums, &c." we have lately found the effects of Dr. Stevens' saline treatment to be very surprising. In almost every case we have found the dark appearances in the mouth to be altered in an incredibly short time. We have given the above dose to adults every two or three hours, in the middle and last stages of the disease for some time; and almost in every case the tongue, lips, &c., became moist and florid, and recovery rapidly followed; except where some other disease existed.]

20.—EFFECTS OF LEAD ON THE GUMS.

By Henry Burton, M.D., Physician to St. Thomas's Hospital.

[We subjoin a few interesting remarks on this subject by Dr. Burton, compiled from his paper in the volume just published of the *Medico-Chirurgical Transactions*. We believe he was the first to make this useful observation.]

In the total number of fifty patients who were examined while under the influence of lead, a peculiar discolouration was observed on their gums, which I could not discern on the gums of several hundred patients, who were not under the influence of lead, and which I believe cannot be produced by any other internal remedy.

The edges of the gums attached to the necks of two or more teeth of either jaw, were distinctly bordered by a narrow leaden-blue line, about the one-twentieth part of an inch in width, whilst the substance of the gum apparently retained its ordinary colour and condition, so far as could be determined by comparing the gums of these patients with those of other patients of the same class in the hospital; there was no invariable tumefaction, softening, or tenderness about them; neither was there any peculiar fœtor in the breath, nor increased salivary discharge to be observed on any of the fifty patients; and on thirteen out of fourteen patients, who were treated in the hospital with acetate of lead, and carefully watched during its employment, the substance of the gums, the smell of the breath, as well as the quantity and colour of the saliva, preserved the same characters, after the appearance of the blue line, as they respectively possessed before the saturine preparation was administered; but on the fourteenth patient, who died from hæmoptysis, the gums,

which were, previously to the use of lead, tumid and soft, became contracted and firm, after the blue line had appeared.

I do not remember to have seen one example of the bleeding tumified gum, peculiar to confirmed scorbutus, produced by the internal use of lead; nor do I think it consistent with experience or reasonable, to suppose that a powerful and very useful astringent in hæmorrhages should simultaneously check hæmoptysis and produce bleeding and tumid gums.

Neither is the state of the gums and salivary glands induced by mercurial preparations, similar to that produced by those of lead; for in fourteen cases of pulmonary disease treated with the acetate of lead, no pain, heat, redness, or tumefaction of the gums, characteristic of the action of mercurials, were observed; nor was there any increased flow of saliva, nor looseness of the teeth, notwithstanding the blue line was evident on the gums of all the fourteen patients.

I do not wish to assert that salivation and turgidity of the gums are never produced by the internal operation of lead; but I venture to affirm they are rare occurrences, and not characteristic of its influence. On the other hand, the discolouration is a very constant occurrence.

I presume to express a strong belief that the unobserved introduction of lead into the human body is continually taking place, to a much greater extent than is usually imagined, and that it has often caused an ambiguous assemblage of morbid symptoms.

In abdominal diseases simulating lead colic, as well as other forms of disease about which any ambiguity exists, an inspection of the gums will decide the question, whether the symptoms were produced by lead.

With reference to the prophylactic utility of the blue line, I venture in conclusion to express a conviction that if the public in general, and workmen in particular, who are often exposed to the operation of lead, were to attend habitually to the condition of their gums, the discolouration would be often perceived on them in the absence of any other unequivocal symptom, and its appearance would afford them a friendly warning of the probable approach of the more serious effects of lead on the nervous system.

Medico-Chirurgical Transactions, vol. 23, second series, vol. 5, p. 63-79.

[Appended to this paper is a table which shows at one view the quantity of the acetate of lead taken by certain patients, the time occupied in taking it, and the effects produced on the system. We subjoin a few of the more remarkable cases as examples.

Bryan took fifteen grains in four days, and experienced severe colic.

Bevan took 208 grains in twenty-six days, followed by slight abdominal pains, relieved by an aperient.

Carter took 166 grains in twenty-nine days, with slight temporary pain.

Godsell took 295 grains in thirty-three days, followed by no colic, but died of profuse hæmorrhage.

In these and all other cases, the blue line was produced invariably, but not always at similar periods.]

21.—BISCUITS D'OLLIVIER.

[Sir Francis W. Smith, in his "medical communications from Paris," to the Association of Physicians, recommends these biscuits to the profession in those cases where mercury given in the usual forms, or applied by means of friction, produces those unpleasant effects on the bowels, which frequently compel us to relinquish its use, in spite of the assistance of opium. He says:]

It will be in the recollection of the Association, that cases will occasionally

occur in which mercury is very strongly indicated, but in which the best directed efforts will fail in enabling the constitution to receive it. I allude particularly to those cases, principally of a specific character, where the greatest necessity would appear to exist for producing the constitutional effects of mercury, but where the bowels show an intolerance of the mineral so decided as to cause the practitioner in despair to give up its use; its introduction, even by inunction, producing the same poisonous effects as where it had been introduced by the mouth; early in the past year it was my fortune to meet with such a case.

[After relating his cases, in which he was obliged to desist more than once from the use of mercury, he says:]

I was now compelled to abandon the use of mercury, and to rely upon the sarsaparilla, as I did not think it justifiable to give the hydriodate of potass in the existing condition of the bowels; and confess I felt much mortified and annoyed with the state of my patient; when, on conferring with Sir Augustus West, he stated that he had, in similar cases, derived the most satisfactory results from Ollivier's biscuits: that their constitution was as follows: into a certain quantity of paste or dough was introduced a definite quantity of muriate of mercury, the dough is then formed into biscuits of a convenient form, and baked, and the mode of administering them was by giving the patient one to eat each day, increasing the number every three or four days till the effects desired to be produced had taken place, and that he had been thus successful in affecting the mouth gently and with certainty in cases where the bowels were intolerant of the mineral in all other forms; under the circumstances I determined to try the effect of the biscuits; and without delaying the Association with a detail of the various days on which I increased the number of biscuits consumed, I may state in a general way, that my patient took during forty-five days 264 biscuits, during which time the bowels never became in the least affected. The mouth became sore at the end of twenty days, and the effect of the medicine was afterwards kept up with ease and satisfaction till all symptoms of a syphilitic nature had entirely disappeared; I may add that the decoct. sarsæ. comp. was continued almost without intermission during the whole period, but except during the latter portion of the course the patient was not subjected to confinement.

Remarks.—It is a fact familiar to the members of the Association that mercury may often be successfully introduced into the system by the mouth, even in cases where the bowels have evinced very great delicacy, by taking the precaution of giving it after meals instead of upon an empty stomach; and different reasons may be assigned for the factitious tolerance thus produced; and no doubt it was the observation of the fact which led Ollivier to combine mercury with flour of wheat. I regret not to have been able to procure for the Association the exact proportions which he observes in forming his biscuits, but it will be obvious to the Association that the muriate must undergo considerable modification during the process of baking; probably it is reduced to the condition of a protoxide.

Dublin Journal of Medical Science, July, 1840, *p.* 366.

22.—REMARKS ON THE POWDER OF SARSAPARILLA.

[Sir Francis Smith, speaking of this medicine, says:]

I have long been engaged in observing the effects of different preparations of sarsaparilla, and I am persuaded that of all the forms in which it can be given, that of powder is in most instances the most valuable. The advantages which it possesses, in my opinion, may be stated as follows: viz., 1, we

can make use of it in many conditions of the stomach where a large quantity of fluid would prove inconvenient or injurious; 2, it may be taken in more certain and definite quantities; 3, its effects are, so far as I have observed, more durable. Of course certain conditions of the skin will occur, where the use of the domestic decoction will be more serviceable, especially if it be taken warm; and in a slimy or foul condition of the primæ viæ the infusion in lime water (recommended by Dr. O'Beirne of Dublin, not as made in the Pharmacopœia) will present special advantages. All forms of extract, whether fluid or otherwise, I have remarked to be so uncertain in their effects, (and that whether made with or without the contact of atmospheric air,) that I have long ceased to prescribe them at all.

MODE OF PREPARATION AND ADMINISTRATION OF THE POWDER.

Different means may be used in preparing the powder of sarsaparilla, and provided they have the effect of excluding the ligneous portion of the root, and retaining the remainder, they may be safely left to the discretion of the compounder. The mode made use of in one establishment where I have superintended its preparation is as follows: a quantity of the roots of sarsaparilla, either split or not, but not cut into short portions, is either subjected to the vapour of steam for a few minutes, or if time admit left in a damp cellar for twenty-four or thirty-six hours, and subsequently introduced for an hour into a stove or oven, moderately heated, which processes have the effect of loosening the connection between the bark and albumen and ligneous portion, when the former may be easily stripped off, and powdered finely in a mortar, and the powder may afterwards be taken simply in a spoonful of any bland fluid, or may, in cases where quinine is indicated, be united with a suitable proportion, and the flavour be covered with a little oil of cinnamon —or the powder either simply, or combined with S. of quinine, or in gouty habits, with capsicum or ginger, may be made into pills, and administered in the proportion of from two to four scruples daily.

Dublin Journal of Medical Science, July 1840, *p.* 370.

23.—TREATMENT OF TINEA CAPITIS.

By Robert J. Graves, M.D.

[In a most interesting paper by Dr. Graves, in the Dublin Journal, on "the treatment of various diseases," he makes the following practical observations on tinea capitis:]

This species of ring-worm or dry tetter, is very contagious, and sometimes makes its appearance in one or several spots on the scalp, face, or other parts of the skin, but seldom is observed on the lower extremities or abdomen. It scarcely ever remains for any great length of time fixed in any part, except the hairy scalp, where it is apt to locate itself and become permanent; its duration often extending through a great number of years, or even a whole lifetime. I recomend attention to the following points:—

1st. When the disease is of long standing, always insert an issue in the arm before you attempt its cure. I have seen water on the brain, and other fatal consequences, from neglect of this precaution.

2ndly. If this disease has clearly originated from contagion, and no other evidence of derangement of the general health can be detected, we must not, from the mere presence of the cutaneous affection, infer a constitutional taint, and must avoid the common error, of making the poor children undergo a course of alterative medicines.

3dly. This affection originating in contagious matter directly applied to the skin, cannot, like some varieties of lepra and psoriasis, (to which it often

bears a great resemblance,) be cured by internal medicines, such as mercury, arsenic, and iodine, given separately or in combination, as in Mr. Donovan's new preparation. *(See Art. 13.)*

4thly. When it occupies the hairy scalp, the common procedure of shaving the head is injudicious, for it adds to the irritation of the skin; and the scalp can be sufficiently exposed by cutting the hair as close as possible with a sharp scissors.

5thly. The great object is to get rid of the morbid action which is going on, and which consists in an inflammation of the external surface of the corium; an inflammation occurring in spots, and giving rise in the first place to an increased secretion of epidermis, which produces the scaly appearance of the parts affected; and in the second place, to a very slight and scarcely perceptible oozing of moisture which immediately dries into scales, and thus escapes notice, being mingled with the scurf formed by the detached portions of morbid epidermis.

6thly. The cure must be accomplished by removing these scales as far as that can be done by diligent ablution, without using any irritating degree of of friction: and when the diseased portion of the skin has been thus exposed, we must next have recourse to some application which will destroy the morbid secreting surface. Formerly this was attempted by means of an endless variety of complicated formulæ, each of which had its advocates; the list may, however, be now reduced to a few simple remedies, and in truth, with nitrate of silver, sulphate of copper, or strong tincture of iodine, every case of this disease may be cured.

7thly. I never use the solid lunar caustic, or sulphate, but prefer a solution of ten, fifteen, or twenty grains to the ounce, as the case may require. As to the application of this solution, it will not do to apply it, as is generally done, with a camel's hair pencil, *for it must be strongly rubbed into each spot*, for which purpose a small bit of sponge, covered with fine linen, and tied to the end of a quill or slender stick, should be employed. When a large portion of the scalp is affected, it will require some perseverence to apply this lotion in an effectual manner.

8thly. An application of this nature, when effectually done, must not be repeated oftener than once a week.

9thly. Immediately after it the whole scalp must be covered with a spermaceti dressing, and the spermaceti must be renewed at least four times daily, so as to keep the head constantly moistened with it. The head is not to be washed for three days after the application of the caustic, or of the tincture of iodine, but then it may be well but very gently washed with yellow soap and water twice a day, taking care to cover, as before, with a spermaceti dressing after each washing.

In scaly diseases of the skin, it is quite surprising how much the cure is facilitated by keeping the affected parts constantly smeared with spermaceti, oil, melted suet, or even candle-grease. Without this aid, the use of caustics will often disappoint the practitioner.

10thly. When the above precautions have been taken, the cure will advance rapidly, and each succeeding application of the caustic solution, or of the tincture, may be less severe.

Dublin Journal of Medical Science, Nov., 1840, *p.* 239.

24.—TREATMENT OF SCIATICA AND LUMBAGO.

By Robert J. Graves, M. D.

[Dr. Graves justly remarks that in acute sciatica and lumbago, one of the most powerful remedies consists of morphia, calomel, and James' pow-

der, given in the following way:—Three grains of acetate of morphia, six grains of calomel, and two grains of James' powder, divided into eight portions, and one to be taken every third hour till the gums become affected. This is to be assisted by antiphlogistic measures, as blood-letting general and local, &c., but when the case becomes chronic, and the patient must of necessity continue his occupation, if possible, he strongly recommends, from personal experience, the hydriodate of potass. He experienced in his own person, a severe attack of this disease; against which he struggled for some time, obtaining relief. He states as follows:]

Happening to meet Mr. Ferguson, of Kildare-street, he recommended me to try hydriodate of potash, of which he was good enough to send me a drachm dissolved in a pint of decoction of sarsaparilla. I took a quarter of this daily, and may literally apply here the common phrase, that I felt each dose do me good; in truth, the benefit I derived was perceptible hourly, and was so rapid, that in four days all traces of the lumbago were gone, and my lameness had quite ceased. I did not take more than one bottle, i. e. one drachm of the hydriodate, but the good effect continued after I had ceased taking it, and in less than a week I was perfectly well. Subsequent experience enables me to recommend this medicine strongly, in subacute and chronic lumbago and sciatica.

It is right to observe, that the remedy had in my own person to work against various disadvantages, for I neither relaxed from my labours, nor refrained from eating and drinking as usual. This is only another example of the many I have met, which prove how injudicious it often is to seek the cure of local inflammations by means of lowering the whole system.

In spite of the best directed means, sciatica is very apt to become chronic, and then spirit of turpentine, carbonate of iron, arsenic, extract of stramonium, corrosive sublimate, blue pill, and iodine internally, blisters to the loins, thigh, and calf of the leg, acupuncture, croton oil frictions, and other stimulating applications must be successively tried. On a former occasion I recommended a combination of opium, with spirit of turpentine internally, and when that fails, Dover's powder, combined with sulphate of quinine. I am sorry not to have it in my power to lay down any general principle, which would enable us to judge in what cases each of these remedies is peculiarly indicated, for experience has not confirmed any of the rules generally relied on, and therefore we must content ourselves with treating these diseases empirically.

Dublin Journal of Medical Science, Nov., 1840, *p.* 245.

25.—ON THE MEDICAL PROPERTIES OF ALOES.

By G. G. Sigmond, M.D.

The operation of the different varieties of aloes upon the system, though differing in intensity, is precisely similar as to its nature; although they are all perfectly soluble in fluids, whether of an aqueous or of a spirituous kind, they do not seem so immediately to be dissolved in the human stomach, and hence the slowness of their operation, generally speaking, twelve or sixteen hours elapsing before their effect is decidedly exhibited. It has been, and is still an interesting question upon what viscus does aloes more immediately act? Whilst some confine its power to the rectum, others believe its agency to be upon the liver; by some it is not believed to be entirely dissolved until it has reached the receptacle of the residue of the ingesta, which cannot be incorporated into the system. Its influence upon the liver is certainly marked by the peculiar condition of the evacuation, which shows evidently, both

by its colour, by its odour, by the peculiar pungent effect upon the anus, that an increased quantity of bile has been poured forth. That it acts upon the vena portarum is fairly to be deduced from the very pecular state into which the hæmorrhoidal veins are thrown by the congestions which so rapidly occur after a dose of this drug has been taken, and also by the condition of the uterine vessels which has led to its employment as an emmenagogue. It is not easy to ascertain whether the specific influence upon the venous system is the cause of the cathartic power possessed by it; we find, however, that some connexion exists, and that the more the large intestine is stimulated to pour forth its contents by its action, not by the largeness of its dose, the greater is the relief afforded to the sanguiferous system; hence its great value in determination of blood to the head, in venous congestions, and its superiority over medicines of a somewhat similar nature, and hence too, the caution necessary in its administration. The slowness of its action renders it sometimes to us of much importance, from our power of giving it in some states in which it is to be given at night, and its operation not required until the morning; the smallness of the volume in which it may be used, the shape of pill into which it is so easily made, and which disguises so well its bitterness, are all of them subjects worthy our consideration.

From the circumstance of the alkalies and the carbonates rendering it more soluble, it is often combined with them, and we are hence furnished with weapons which, used with skill and care, enable us more certainly to combat disease. Thus, with soap, although we may diminish its intensity of action, we render it more quickly purgative. If, with Dr. Hamilton, we cannot quite agree that it is almost a universal remedy, that the most formidable maladies will yield to its effects, still it is to be acknowledged that in a vast number of chronic disorders it is invaluable; that in the obstinate constipation to which the artist, the student, the aged, and the sedentary are subject, from inactivity of the liver and the sanguiferous system, it is, under the control of the skilful medical man, a drug which deserves the highest commendation; and though from its abuse in the vast number of quack medicines and patent pills, it has been the source of mischief, and has been occasionally condemned, we possess nothing that we could substitute for it that has more claims to our consideration.—*Lancet, Aug.* 1838.

American Journal of Medical Science, Feb. 1840, *p.* 445.

26.—OBSERVATIONS ON BLOOD-LETTING.

By Henry Kennedy, M.B., L.R.C.S.I.

The effects of taking blood from the system as a general plan of treatment, suited to many diseases, has been treated of by some authors, but by none in a more masterly manner than by Dr. Marshall Hall. I am not aware however, that even this author has alluded to one effect, or rather law of the system, connected with loss of blood, on a knowledge of which appears to me to depend a great deal of our success in the treatment of disease. The law alluded to is simply this—that as soon as a quantity of blood (℥xii.) is abstracted, that moment the system commences to supply the deficiency. It would appear, in fact, as if within certain bounds, the quality of the blood was secondary in importance to its quantity. It is now many years since I saw the following experiment performed by the late Dr. M'Dowell:—A vein was opened in the neck of a dog, and the animal was allowed to bleed to apparent death: a quantity of tepid water was then thrown in; and according as it passed, the animal revived, and was soon able to stagger about. It is well known too, that when venesection is had recourse to, three or four times in rapid succession, the clot constantly diminishes, while the serum of the

blood, as constantly increases at each bleeding, showing, at least to appearrance, that the deficiency of the proper blood of the system is made up by the serous supply. The experiments of Prevost and Dumas prove the same point still more satisfactorily: they found that even in so short a time as ten minutes the serum of the blood had increased in quantity.

In sthenic pneumonia, it frequently happens that in spite of treatment the lung becomes solid; or, it may be, the patient does not present himself till this has occurred. A good deal of difficulty often exists in deciding on the propriety of general bleeding in such cases: the extremities may be cold, and the surface covered with clammy perspiration; the pulse, too, may be weak; and yet there are few cases in which general bleeding will be found more beneficial. Reaction will be found to establish itself, and the lung will become much more rapidly clear than if less energetic means had been used. There is still another case connected with pneumonia, and which presents itself to the medical man by no means unfrequently. A person gets a slight cold, which is neglected; after some time he asks advice, and on examination, a portion of the lung is found solid. All fever has subsided—the necessity for bringing back the lung to its healthy state need not here be insisted on. Now, this cannot be better done than by following up a plan of treatment which has been already spoken of by Dr. Stokes for the cure of empyema, only with a little more vigour. In place of local bleedings, or possibly in conjunction with them, one or two general bleedings will be followed by the most decisive results. It may be recollected among the details of the treatment alluded to above, that the lowest diet is enjoined—hence the "modus operandi" of this plan appears to me sufficiently obvious, by keeping in mind the principle I am endeavouring to establish. The system is deprived of a quantity of its blood, and the food taken is not sufficient to supply the deficiency. Under these circumstances, the system is, I believe, actually forced as it were, to take back whatever may have previously been poured out, such as serum, lymph, or possibly even pus. It is curious to observe in some cases with what great rapidity this may be effected. I have the notes of a case of acute pleuritic effusion, complicated with pericarditis: Dr. Stokes saw this patient, and guessed the effusion to amount to three half pints. All evidence of effusion had disappeared at the end of 48 hours: this patient had been largely bled—three times generally and four times locally. Many other instances might be adduced—thus, two very formidable cases of hœmoptysis have come under my notice. On examining the chest, the respiration was found to be very feeble, and largely mixed with bronchial rales. To save these patients' lives it was necessary to have recourse to extensive bleeding, both general and local. The following day the respiration had become quite clear, and the rales had very nearly completely disappeared. In severe cases of epistaxis it is well known there is no more judicious means of arresting the bleeding than by taking a quantity of blood from the arm. Some time back I met with a case of hæmorrhage from the socket of a tooth; the bleeding had been going on very freely for seven or eight hours, and the patient had been much weakened. Having tried the usual means of arresting the hæmorrhage, and failed, I placed the patient on a chair without a back, and bled him till he fainted; he probably lost about ℥xiv. of blood, but it had at once the effect of stopping the hæmorrhage, and it never recurred. How is this to be explained? Simply, I conceive, in this way:—Nature is frugal of the blood of the system, and rather than lose a quantity that would injure it, she will stop hæmorrhage which is proceeding from the mouth of even an open vessel.

Dublin Medical Press, Sep. 23, 1840, p. 196.

27.--ON THE ADVANTAGES OF A HIGH TEMPERATURE IN THE PREPARATION OF BLISTERING PLASTER.

By M. Donovan, Esq.

It is a common opinion that blistering plaster is injured by being heated; and hence it is customary, in preparing it, to mix in the powder of cantharides with the fatty ingredient when they are about to solidify, after having been melted. This mode of proceeding is directed also in the pharmacopœias; and the caution seems founded on the supposition that the cantharidin or vesicating principle is of so delicate a nature that it would be injured by any higher temperature.

The supposition I believe to be unfounded, and the precautions used in making the plaster, not only unnecessary, but injurious.

Several years since I made the following experiments. A quantity of blistering plaster was prepared exactly according to the pharmacopœia. Another portion was made by mixing the fatty ingredients with the powdered cantharides, exposing the mixture to the temperature of 250° for half an hour, and then, while the plaster was very hot, straining off the cantharides. With each of these plasters a blister was made in the usual manner, and applied to the inside of my thighs. In eight hours the plaster made by heating to 250° had reddened the skin more than the other; in twelve hours a few vesicles were produced by the former, and not by the latter; but in sixteen hours there was a perfect and equal vesication in both cases.

I tried the effect of the blister prepared by heat on a number of persons, and found it exceedingly active. In two cases the persons had common blisters applied with less effect than was desirable, but the vesication was perfect when blisters prepared by heat were employed.

I prepared blistering plaster by exposure of the cantharides with the fatty materials to so high a temperature as 300°, and applied a blister made of it to my arm. In sixteen hours there was as perfect a vesication of the *whole* surface as ever I saw. There can be little doubt that a still higher temperature may be employed without destruction of the vesicating principle.

These experiments prove that there is not only no injury done to the vesicating principle of cantharides, even by a very high heat, but that blisters made by the heating process are rather more active than those prepared in the usual manner. Indeed it might be expected that such would be the result. The powder of cantharides, even when fine, still contains much of the cantharidin locked up in the scaly armour of the fly. By the solvent power of the melted fats, the cantharidin is dissolved out of the parenchymatous portion of the fly, and being then in its most minute state of division, it will blister with proportionate activity. The parenchymatous portion, now in a great measure exhausted of its vesicating principle, is perhaps detrimental, by occupying space without contributing power.

Much trouble is saved by preparing blistering plaster by the high temperature plan. When the cantharides are used according to the instructions of the pharmacopœia, they must be finely powdered, an exceedingly difficult task; while, in the other way, they need only be somewhat broken down, and they may be removed by the strainer when the active principle has been dissolved, and extracted from them.

It remains to show that the employment of heat in the preparation of blistering plaster has other advantages. Damp is a great enemy to the balance of the elementary affinities in the fly. I have found that powder of cantharides which contained merely their usual quantity of moisture when put into a glass bottle and well closed up with a glass stopper, acquired an intolerable fœter after some months. The powder exhaled ammonia; for when a slip of paper wet with dilute nitric acid was let down into it, white fumes were abun-

dantly produced. This proves decomposition. The smell of ammonia was even recognizable in the fœtor. Long before this period the powder had become mouldy.

We know also that blistering plaster always becomes mouldy when any moisture has been left in its ingredients. Suet and hog's lard put up in a moist state become mouldy; but both of them keep better, and the former for a long time perfectly well, when moisture has been carefully excluded.

Thus moisture is detrimental to all the ingredients of blistering plaster; and hence every precaution ought to be taken to expel it. This will best be done by heating the fatty materials melted with the resin, to the temperature of 250°; the water will have bubbled off in steam when this degree has been attained. If powder of cantharides, in its ordinary state of dryness, be thrown into the fats, heated to this temperature, there will be a sudden, copious, and long-continued extrication of steam bubbles, although the powder has been to all appearance dry.

These observations afford the principles on which blistering plaster of due activity and of a comparatively imperishable kind, may be formed. The process is this. Introduce the resin and fats into a proper vessel; melt them; throw in the powder of cantharides; stir the mixture continually until a thermometer immersed in it indicates that the temperature has risen to 250°. Remove the vessel from the fire, and, if the cantharides are not to be strained off, continually stir the ointment. By these means, all the water will have been expelled from the fats, the resin, and the cantharides: and a plaster will be obtained much less liable to injury from being kept than the common.

The employment of a high temperature, in the preparation of blistering plaster, has several beneficial effects. It causes the solution of the vesicating principle in the fats, thus producing a blister more certain in its operation. It expels the water which naturally exists in all the ingredients of blistering plaster, and endangers its spoiling, if long kept.

While I am on this subject, it may be proper to allude to a proposal which has been made of a method of obviating strangury arising from the action of blisters. It consists in boiling cantharides in water previously to their being pulverised, and drying them. After this, it is said they no longer possess the injurious property.

Dublin Medical Press, Aug. 19, 1840, *p.* 118.

28.—ON THE USE OF SULPHUR IN SOME SPASMODIC AFFECTIONS, PARTICULARLY IN ANGINA PECTORIS.

By W. Munk, M.D., Physician to the Tower-Hamlets Dispensary.

[Dr. Munk was first led to notice the effects of this remedy in a gentleman whom he was attending for a different disease, and who was attacked with angina pectoris towards the termination of the attendance. Dr. Munk, on taking leave, advised the sulphur to be taken regularly as a laxative, without any view of curing him of his accustomed attacks of angina pectoris, to which he was very liable.]

Some months after this, [says Dr. M.,] when in attendace upon a member of his family, I inquired concerning the attacks, and was informed that there had been no return of them. He had also remained free from hæmorrhoids, and had kept the bowels gently relaxed by sulphur, a drachm of which in milk he swallowed every night on going to rest. Himself, however, and the other inmates of the house, complained greatly of the disagreeable odour of his perspiration, and were anxious to have some other laxative in the place of sulphur. The confection of cassia was, therefore substituted for it. Six

weeks after this he had a severe attack of angina, another in about a month, and again, for a third time, after an interval of seven weeks. Attributing the relapse to the electuary, he of himself again had recourse to sulphur. The bowels were kept by it, rather more open than by the cassia; and, for a considerable period, he continued free from the paroxysms. In the autumn of 1838, owing to the heat of the weather, and the consequent increase of his perspiration and its disagreeable concomitant, the sulphureous odour, he once more discontinued its employment, taking now, in its stead, small quantities of castor oil, or of the compound rhubarb powder of the Edinburgh Pharmacopœia. Again did the paroxysms return, and for a third time did they cease with a recurrence to the employment of sulphur. This medicine he continued during the whole of the winter, without any return of the complaint. In May, 1839, he experienced a very slight paroxysm, although then taking the sulphur as usual; since which he has remained in perfect health, with the exception of an occasional return of hæmorrhoids.

Some time elapsed before I could arrive at any thing approaching to a satisfactory solution of the relief experienced; at first I attributed it to the lax condition in which the bowels had been kept; yet this supposition could scarcely be correct, inasmuch as other medicines, equally efficient as gentle laxatives, produced no such result. After a time, however, the connexion between the particular laxative, sulphur, and the absence of the paroxysms became so evident, that it could scarcely be doubted but that they stood in the relation of cause and effect.

[Dr. Munk was still unable to account for the *modus operandi* of the drug until he met with Dr. Chapman's "Elements of Therapeutics," in which work it was asserted that sulphur, even when applied topically in the form of powder to any part affected with spasm, cramps in the muscles, stomach, &c., had a decidedly good effect. Dr. Munk found this to be the case, in a case of the latter disease; and then proceeds to say,]

Having thus proved experimentally the accuracy of Dr. Chapman's statement as to the power of sulphur in these cases, I became the more anxious to test its effects in angina pectoris, a disease, which I believe, depends upon an analogous condition of the nervous and muscular structures of the heart.

That spasm or cramp of the heart is the proximate cause of the symptoms constituting the paroxysm was the opinion of Dr. Heberden, to whom we are indebted for the first description of the disease, and for the name it now bears.

[Dr. Forbes, in his article on the same subject in the *Cyclopædia of Practical Medicine*, says,]

Of the intimate nature of the pain in the paroxysm of angina we know nothing; but we know no more of the nature of any pain. All that we can propound concerning it is, a relation of the events which seem to lead to it, and the condition of the parts in which it occurs; at the time of its occurrence we know that the pain is not of that kind which arises from inflammation or ulceration, or any other fixed physical alteration of the part. All the circumstances attending it *prove it to be of that kind which occurs in cramp or spasm*, or from pressure, or in the class of cases termed neuralgic, in which the painful sensation is the result of some unknown temporary condition of the nerves of the heart, not manifested by any physical alteration of them discoverable by our senses.

London Lancet, June 18, 1840, *p.* 602—606.

[Dr. M. very justly warns us not to expect much benefit when the angina pectoris is owing to structural disease of the heart, but only when its functions are disordered. The disagreeable odour of the perspiration is a strong objection with many against its continued use.]

29.—OBSERVATIONS ON MONESIA.

By M. Bernard Derosne, Paris.

A new substance has been added to the materia medica, which seems likely to be of considerable importance. A French merchant who had resided for a long time in the interior of South America, having observed remarkable effects produced in certain diseases peculiar to the country, by the use of an extract which was prepared from the bark of a native tree, determined to import this substance, known under the name of monesia, into France, and have its properties examined by competent persons.

We have no knowledge of the tree which furnishes this bark, and as far as we know, no American traveller or naturalist has described it: the bark, of which we have some specimens at our disposal, is of a dark reddish-brown colour, and presents a compact fracture. The extract, as prepared in the country, has been sent to us in the form of small cakes, weighing about five hundred grains, and being from eight to ten lines in thickness, its colour is a dark brown, nearly black; the newly-fractured surface is neither dull nor shining; it is entirely soluble in water, and its taste, which is first sweet, becomes soon astringent, and leaves finally an acrid taste, which is strong and persistent.

Monesia has been used both externally and internally, and the following are the diseases in which it has been tried:

Used Internally.—Bronchitis, hæmoptysis, phthisis pulmonalis, diarrhœa, debility of stomach, enteritis, leucorrhœa, blenorrhagia, scrofula, scurvy.

Used Externally.—Purulent ophthalmia, hæmorrhoids, ulcers, leucorrhœa.

Mode of Administration.—The preparation of monesia which has been most frequently used, is the extract in the form of pills, in doses of from twelve to thirty-six grains in the day. M. Martin St. Ange has two or three times gone so far as forty-five grains in the day. The syrup has been rarely used, it is less active than the extract, and is only preferable in the case of children; the tincture has been used in the form of injections, containing a drachm of the tincture to six ounces of water, and a stronger injection may be used without inconvenience. One or two drachms of the tincture may be given internally, in the day, in a bitter infusion.

In general it may be said, that monesia is most active in diseases of the digestive organs, in hæmoptysis, and uterine hæmorrhage; while in cutaneous diseases, and mucous fluxes from the genitals and lungs, its action appears less marked.

This medicine presents this remarkable property, that although endowed with energetic power, and producing considerable stimulating effects on ulcerated surfaces, it produces no irritation of the stomach, as many tonics do.

Finally, it must be observed, that physicians who have experimented on this substance, have in all cases, in order to determine its relative activity, prescribed it after having used other means. And lately a comparative experiment has been made between pomade of tannin and of monesia, which has shown the superiority of the latter substance.

Dublin Journal of Medical Science, Sept., 1840, *p.* 127.

30.—ON THE LACTATE OF IRON.

This new preparation of steel has already been extensively tried by some of the leading hospital physicians in Paris, and has met with their unqualified approbation.

The following extracts from a memoir by M. M. Gelis and Conte, will be sufficient to introduce it to the notice of the English reader.

"Several reasons have induced us to select the combination of the protoxide with the lactic acid: this acid is widely diffused through the economy; there is, perhaps, not one part of the body which does not contain a notable quantity of it. Berzelius has detected it in muscle, in milk, and in all the secretions; the perspirable matter owes its acidity to its presence, and a considerable quantity is found in the urine. The solvent power of the gastric juice is perhaps mainly attributable to the presence of the lactic acid; the traces of the hydrochloric are, it is now generally admitted, very feeble.

It must, therefore, be the lactate that is formed in the stomach, when any steel medicine is swallowed.

It is easily prepared by treating iron filings with diluted lactic acid. The water is decomposed, hydrogen is evolved, and the oxygen combines with the iron. When the evolution of the gas ceases, the solution is filtered and then evaporated until a pellicle forms on the surface; the salt chrystallises on cooling.

The lactate is not very soluble in water, and a high heat decomposes it. It is not readily affected by exposure to the air.

It may be administered in the form of pastilles, drops, or lozenges: the sugar which enters into the composition of these prevents the further oxydation of the salt. The dose is from four to fifteen grains.

The authors adduce several cases of chlorosis and other states of the system which are usually relieved by steel medicines, drawn from the practice of M. M. Bouillaud, Rayer, Beau, &c., in which the lactate was administered with excellent effects: in some it succeeded after the usual ferruginous preparations had been fairly used without benefit.

M. Bouillaud has reported most favourably of this new medicine to the Academy; he has used it in twenty-one cases, and in all it produced excellent effects. It seems to have a marked influence in increasing the appetite. The dose was from six to fifteen pastilles (five centigrammes in each); perhaps each patient took eight or ten grammes in all.

Professor Fouquier confirmed the favourable report communicated by M. Bouillaud. He stated as his opinion, that the lactate would become one of the most valuable and standard ferruginous preparations used in medicine.

Medico-Chirurgical Review, Oct., 1840, *p* 511.

31.—ON STAMMERING.

[The following observations are by a young physician who cured himself of this troublesome affection in the way here described:]

To form a more accurate idea, [says he] as to the cause of stammering, let us briefly notice what we observe in a person afflicted with this infirmity, when he attempts to speak.

In some cases—and this is the least severe form of the malady—the person speaks sufficiently fluently for a greater or less length of time; but if the pronunciation of a word which begins with certain consonants, such as *b*, *p*, or *v*, coincides with the close of an expiration, then the breathing becomes embarrassed, hurried, and panting, and the efforts of the person to pronounce the word are accompanied with convulsive movements of the lips; at other times the lips are in a state of tonic spasm. At length the person succeeds in overcoming this difficulty, by taking his breath, or making an inspiration.

In other cases, where the stammering is more decided, the person often cannot utter without difficulty almost any sound, even when the word which he wishes to pronounce begins with a vowel, (as was the case with myself in respect to the word *oui*); the features and neck swell up; and the jugular veins become distended; and the person tosses his arms about to find relief.

These two degrees of the infirmity are often observed to co-exist in the same person; if he becomes embarrassed by a word which begins with a consonant which is not easily pronounced, the fear of not being able to proceed renders the respiration panting; and then any efforts at speech are quite impracticable.

In both degrees or stages of the malady, *the stammering ceases after a strong inspiration;* but it returns at once if the person does not continue to respire regularly, and the more frequently and badly if his breathing becomes agitated, and he strives much against it.

The great object, therefore, is to bring and keep the respiration in a quiet tranquil condition, and cause it to follow a certain degree of cadence, such as we use in singing or in declamation. If the person can but once effect this, he will no longer stammer.

From what we have now said, it is evident that in all the various sorts or degrees of stammering, its essential cause consists in a convulsive condition, either of a tetanic or chronic character, of the respiratory function—the effect of which is, either to disturb more or less, or altogether prevent the articulation of sound.

What occurs in the lips, tongue, and throat, is not the essential and primary cause, but is altogether accessory; and it is according to which of these parts is chiefly affected, that the different varieties of the infirmity are produced.

The immediate cessation of the irregular convulsive movements by taking in a deep inspiration, clearly shows how intimately they are connected with the cause now mentioned. It was by attending to this simple means, suggested to me by Dr. Lindt, of Berne, that I cured myself at the age of twenty years. The cure, indeed, was aided a good deal, I believe, by the employment at the same time of gymnastic exercises—the effect of which is powerfully to increase the influence of the will over the muscular system in general. Indeed, it has been by their influence in regulating the act of breathing, that the efficacy of various means, which had been recommended and found useful, at various times, in the treatment of stammering, is to be accounted for. In this way the practice of declaiming on the sea-shore with a pebble in his mouth cured, it is well known, Demosthenes of old.

M. Itard has advised the use of some mechanical means to keep the tongue raised, and he makes his patients at the same time speak in a foreign language. This plan of keeping the tongue raised towards the palate has been recommended by other writers. By this simple means Madame Leigh assures us that she effected a cure in upwards of 150 cases.

But however useful it may be to a person who stammers to acquire a certain control over the movements of the tongue, let it be ever kept in mind, that no permanent benefit will be derived unless the patient acquire, at the same time, the power of regulating his breathing—so that whenever he begins to hesitate or falter, he at once draws in a full breath. Madame Leigh imposed upon her pupils absolute silence, except during the hours of practising: and she always observed that those who had the greatest mental energy and power over their will were the most easily and quickly cured.

M. Colombat, although his theory of stammering is far from being correct in our opinion, has recommended a most judicious method of treatment, which if rightly pursued is always sure to affect a cure. It consists in the adoption of the following three means:—1. Giving the tongue such a position that its apex is directed upwards and backwards. 2. Taking in a deep breath at the commencement of each phrase, and repeating this more or less frequently. 3. Marking the time in speaking by the movements of the thumb upon the fore-finger.

By following out these simple rules, it is almost impossible for any one to stammer; and when we consider that this method of treatment consists essen-

tially in causing the person to inspire at the commencement of each phrase, and marking the regular return of the inspirations by the movements of the thumb upon the finger, we at once understand its physiological explanation.

Medico-Chirurgical Review, Oct., 1840, *p.* 489.

32.—TREATMENT OF DROPSY OF THE SYNOVIAL MEMBRANES BY TARTAR EMETIC.

By M. Gimelle.

M. Gimelle has found the administration of tartar emetic in large doses very efficacious in curing dropsy of the synovial membranes; causing complete absorption of the fluid, with abatement of all inflammatory symptoms, if any exist. Twenty-seven cases of dropsy of the joints have been treated successfully by him. He, without any previous treatment, commenced by giving four grains of tartar emetic in the twenty-four hours, and increased the dose by two grains every day, till from eighteen to twenty grains were taken daily. As soon as toleration of the medicine was established, the fluid began to be absorbed, and the cure was in general complete in from eight to sixteen days.

In only five of these cases was vomiting excited by the medicine, in two cases for three days. In eight cases it produced alvine evacuations; but its most general and constant effects were diminution of the strength and quickness of the pulse, weakness of the voice, abundant nocturnal perspirations, and the appearance of a dark circle around the eyes. In almost every case the appetite remained unimpaired. M. Gimelle regards this plan of treatment as the most successful ever yet proposed for the treatment of dropsy of the synovial membranes.

Bulletin de l'Academie Royale de Medicine, and Edinburgh Med. and Surg. Jour. Oct. 1840, *p.* 522.

33.—ON THE EMPLOYMENT OF CIMICIFUGA IN CHOREA.

By Dr Kirkbride.

The *Cimicifuga racemosa* of Nuttall, or black snake-root, was several years ago brought under the notice of the profession by Dr. Young, of Pennsylvania, as a valuable remedy in chorea; and Dr. Kirkbride has given seven additional cases, which go far to prove the efficacy of the remedy as a cure for that disease. He usually employed free purging for a few days before beginning the administration of the snake-root, which was given either in substance or in decoction. No other medicine was required during the period of its administration, and the cures were in general complete within four weeks after its use was commenced.

Dr. Kirkbride was unable to ascertain in what manner this root produces its physiological effects, as in the largest dose in which it had been exhibited, it had no very evident action on any organ of the body. The bowels were in general moderately open during the use of the remedy, but nothing like purgation was ever produced.

American Journal of Medical Science; and Edinburgh Med. and Surg Journal. July, 1840, *p*, 255.

34.—MODE OF DISCOVERING ADULTERATION OF ESSENTIAL OILS WITH ALCOHOL.

By M. Borsarelli.

M. Borsarelli introduces the essential oil into a cylindrical tube about one inch in diameter and four in length, closed at one end. The tube is to be

about two-thirds filled with the oil. He then introduces small pieces of chloride of calcium, very dry and free from dust, closes the open end of the tube with a cork, and places it for four or five minutes in a water-bath heated to 100°, occasionally shaking it. The tube is then allowed to cool gradually, and if the oil contain any considerable quantity of alcohol the chloride is entirely dissolved, forming two distinct layers—the superior is the essential oil, the inferior the alcoholic solution of chloride of calcium. If the oil contain but a very small proportion of alcohol the calcareous chloride efflouresces, loses its form, and becomes a white mass which adheres to the bottom of the tube. Finally, if the oil contain no alcohol, the chloride not only does not dissolve but retains its proper form.

The same process may be employed to discover the proportion of alcohol mixed with æther, remembering, however, to use a longer tube and not to cork it too tigthly.

British and Foreign Medical Review, Oct., 1840, *p.* 582.

35.—COLOCYNTH OIL, A SUBSTITUTE FOR CROTON OIL IN NEURALGIA, SCIATICA, &c.

By M. G. Janelli.

Dr. Janelli mentions that he has found the oil of colocynth a valuable and cheap succedaneum for croton oil, as an external application in neuralgic affections, but especially in sciatica. He relates in detail three cases of its efficacy in sciatica, and three in cases of rheumatism. After frictions with the oil, the patients generally fell asleep, so much were their sufferings alleviated, and in a few days were so far recovered as to be enabled to return to their usual avocations.

It is to be regretted that no details are given as to the mode in which this oil is prepared, whether from the colocynth seeds by expression, or from some preparation of the pulp of the apple.

Edinburgh Medical and Surgical Journal, Oct., 1840, *p.* 517

SURGERY.

SURGERY.

36.—GENERAL VIEW OF THE MODERN TREATMENT OF SYPHILIS.

[Perhaps one of the ablest articles which has lately appeared on this subject in any medical journal, is that to be found in the number for October of the *British and Foreign Medical Review*. It forms a most complete epitome of the views and treatment of most modern authors on this subject, and gives us those of M. Ricord in particular. It occupies a space of nearly forty pages of that journal, and is preceded by an equally lucid article on the same subject in the number for January, 1838. We strongly advise those of our readers who have not yet perused them, to do so immediately; if they have not the time or opportunity to refer to the original works of the respective authors. We have endeavoured to make a careful selection of the most practical matter, and especially such as refers to the treatment of the disease. Ricord, Championniere, Wallace, Mayo, Parker, Key, Carmichael, Humbert, Lawrence, Mackenzie, Acton, and Hauck, are the authorities upon whom the following remarks are founded, and which may be considered a collection of the most valuable aphorisms on this important subject.]

Chancres are divisible into two distinct stages recognized by Ricord, Wallace, Carmichael, Evans, and others, viz: the stage of ulceration and that of reparation or granulation. It is during the first stage only that the chancre secretes a specific pus, capable of propagating the disease, and producing a similar sore by inoculation: when the sore begins to heal, when granulations spring up, covered by simple puriform matter, the disease is not capable of propagation.

Mr. Evans states that from his experiments he is led to conclude that the fluid secreted by a chancre varies in its effects. He proves that the earlier the infection is taken, while the sore is in its excavated or ulcerating state, and, as we may infer, before the matter is truly purulent, the more severe and obstinate is the ulcer which it produces.

The mixture of the true venerial virus, secreted from a chancre in the state of ulceration, with the ordinary mucous of the vagina, the urethra, or the surface of the prepuce, or with the secretions of these parts in a state of inflammation, does not destroy its specific character or prevent it producing the characteristic pustule by inoculation, unless it be too much diluted. Various chemical agents, however, destroy its powers, and it no longer produces any result when tested by inoculation. Chemical substances decompose it. Amongst these Ricord mentions alkalies, and moderately concentrated acids, as the nitric, hydrochloric, sulphuric, and acetic; potass, soda, ammonia, wine alcohol, and a strong decoction of tan: the active principle of the latter with wine, forms one of his favourite applications to primary syphilitic sores.

The next question to be resolved is the identity or non-identity of the mor-

bid poisons producing a true chancre and gonorrhœa. We believe the diseases to be totally distinct, as the experiments of Ricord and many others seem to us incontestibly to prove. Not only are they proved to be distinct by the results drawn from inoculation but by the pathology and their effects of remedies. It is well known that Hunter considered them identical. Dr. Wallace maintains nearly the same views, considering gonorrhœa as a form of primary syphilis which he describes under the term "catarrhal primary syphilis;" and we find some writers even at the present day still maintaining that gonorrhœa gives rise to chancres followed by secondary symptoms.

Mr. Carmichael, in his lectures on venereal diseases, recently published in the *Dublin Medical Press*, has misunderstood and consequently mis-stated some of M. Ricord's experiments. Mr. Carmichael there adduces some cases of discharges from the urethra, which, being tested by inoculation, yielded the characteristic pustule of chancre. Mr. Carmichael gives this as a case of gonorrhœa; but Ricord distinctly calls it a case of concentrated chancre, chancre of the urethra (chancres larves).

M. Ricord has established the fact that chancres often exist deep in the vagina, and even upon the os uteri.

His researches on the nature and differential diagnosis of buboes are of interest. According to this author, buboes are of two kinds, simply inflammatory, or virulent; in the first instance, succeeding to gonorrhœa, balanitis, or any other primary affection; and in the second, arising from the consequences of the direct absorption of specific matter from a chancre.

He insists that when these buboes occur, without the intervention of any antecedent form of disease, it is impossible to judge of their true character without the test of inoculation, and, consequently, impossible to heal them rationally or well. He maintains that those only which furnish the true characteristic pustule of chancre by inoculation, are those only which are capable of being followed by secondary symptoms. In testing open buboes, he impresses upon us the necessity of taking the matter for the experiment from the secreting surface of the sore itself, and not from the pus which may run out from the bubo, since he constantly found that the latter, which was doubtless ordinary pus, produced no effect, whilst the former—that from the surface or bottom of the sore itself—was followed, where the bubo was venereal, by the usual characteristic pustule of chancre.

The treatment of syphilis without mercury is termed "the simple or physiological method," the treatment with mercury, "The revulsive or mercurial."

Treatment of Primary Syphilis. We shall commence with the catarrhal affections. There is a true and false gonorrhœa, properly so called; and also gonorrhœal diseases of the eye.

It is of great importance, where the character of a female is at stake, to determine whether the affection she is labouring under, be merely a chronic or subacute vaginitis, or a true gonorrhœa.

Modern authorities do not seem to have advanced much since the time of Hunter in determining the differential diagnosis of the two diseases. "The diagnosis of leuchorrhœa," says Dr. Churchill, in his Outlines of the Principal Diseases of Females, "is, according to all authorities, extremely difficult." Sir C. M. Clarke seems to think it impossible. Ricord thinks all doubt may be removed by an examination with the speculum. Whenever the peculiar erosions or superficial ulcers of the mucous membrane covering the cervix uteri are discovered, and which occur in nineteen out of twenty acute cases, we can have no hesitation in pronouncing the disease to be true gonorrhœa. Uncomplicated balanitis generally gives way quickly to remedies of an appropriate kind. If the prepuce can be denuded, Ricord recommends the surface of the glands and prepuce to be superficially cauterized, by drawing the solid nitrate of silver quickly over the whole of the diseased

surface. Slightly astringent injections between the glands and prepuce are of great service, as recommended by Desruelles and Cullerier. Mr. Parker recommends the following liniment to be introduced between the glans and prepuce by means of a camel-hair pencil:

℞. Cerati simp. v. Mellis, Olei Olivæ, aa. ʒj. Hydrarg. Chlorid., ʒss. P. Opii, ʒj. M.

All the modern writers under review, agree in the propriety of an antiphlogistic treatment in the early stages of acute or virulent gonorrhœa.

When the acute inflammatory symptoms have been subdued, Dr. Wallace submitted his patients to the use of what may be termed the specific remedies in gonorrhœa; such are cubebs and the copaiba balsam, with injections of the nitrate of silver and mercury. Mr. Judd, Ricord, Cullerier, and Mr. Parker have employed the nitrate of silver injections with great benefit in gonorrhœa; there appears, however, amongst these writers great difference of opinion as to the degree of strength in which the solution of this salt should be employed. Dr. Wallace and Mr. Judd have used it in the proportions of fifteen grains, or even more, to the ounce of distilled water: Ricord and Mr. Parker recommend two grains to the half-pint. Sometimes the solution of nitrate of silver cannot be borne or does not check the discharge. In these cases the authors before us have proposed a vast variety of remedies. A favourite injection with M. Ricord is a solution of the ioduret of iron, in the proportions of three grains to six ounces of distilled water. In weak solutions the ioduret of iron has frequently arrested the discharge in five or six days; again it has produced an acute attack of urethritis; but when this has subsided the patient has found himself cured of his gonorrhœa. Sir George Ballingall has made some observations on the use of the nitrate of silver injections of the strength recommended by Dr. Wallace and Mr. Judd, and the results would lead us to make use of it with a less proportion of the salt. Sir G. Ballingall employed it in two cases, and both recovered quickly, but at the expense of much suffering. In twenty cases, in which it was used in the 88th regiment in the strength of a scruple to the ounce, the cases were cured at various periods from ten to forty-two days, the average length of time having been seventeen days. In seventeen cases treated in the same regiment by rest and abstinence, the average duration of the treatment was only eight days. Rest and abstinence, however, are not always to be enforced in private practice; and Sir G. Ballingall thinks that unless injections be employed immediately on the subsidence of the inflammatory symptoms, the disease may be protracted for months. Where the solution of ioduret of iron has been borne, the average duration of the treatment has been seven or eight days.

The formulæ for a great variety of injections are given by Mr. Parker. Amongst these a favourite one of M. Ricord may be mentioned, consisting of a solution of pure tannin in port-wine in the proportions of eighteen grains of the former to six ounces of the latter. This is occasionally very useful. We have known a few grains of tannin placed upon the tongue quickly cure a salivation which no other remedy would check.

Swelled Testicle.—The treatment generally adopted in affections of this kind consists of general and local bleeding, fomentations, poultices, with evaporating and slightly astringent lotions. Under this plan patients are generally a long time in recovering, and its use confines them to bed and the recumbent posture.

Suspension of the testicles with gentle pressure is of great service in affections of this character, and has given rise to the treatment now uniformly practised by Fricke in Hamburg, and by Velpeau and Ricord in Paris. Compression in inflammation of the epididymis and the envelopes of the testicle generally effects a cure in four, five, or six days. It prevents the occurrence of hydrocele, and one inestimable advantage is that during its employ the patients can, except in very acute cases, follow their occupations.

We have seen several instances where the patients have not lain in bed an hour, whilst under the antiphlogistic treatment they would have been confined from ten days to a fortnight.

Venereal Diseases of the Eye.—In recent cases the eyes are to be washed out every eight hours with a collyrium composed of one grain of the bichloride of mercury, and eight of the muriate of ammonia, in eight ounces of water, and immediately after this has been done, either with a soft sponge or by means of a syringe, a solution of the nitrate of silver in the proportion of ten grains to the ounce is to be applied over the whole surface of the inflamed conjunctiva. Under this plan of treatment the infant generally opens the eyes in two or three days, and in ten or twelve the acute symptoms are overcome. We have frequently seen acute recent cases of purulent ophthalmia cured in three or four days by introducing daily between the lids a portion of ointment composed of ten grains of nitrate of silver, twenty minims of the liquor plumbi diacetatis, and one drachm of adeps, or unguentum cetacei. With these remedies, local depletion and blisters may in certain cases be used. "In cases which have been neglected for perhaps eight or ten days, it is necessary to take away blood from the external surface of the upper eyelid by the application of a leech, or from the conjunctiva by scarification. The former may be tried in the first instance, and unless followed by marked abatement of the redness and swelling on the inside of the lids the conjunctiva may next be divided with a lancet. The taking away of blood in either of these ways is productive of much benefit, and ought by no means to be omitted, if there be any tendency to chemosis or any threatening of haziness of the cornea." (Mackenzie, p. 40-3.) Blisters are very serviceable, particularly in sub-acute or chronic cases: the bowels should be opened in the acute forms by calomel and castor oil. In threatened disorganization of the cornea recourse must be had to the extract of cinchona or the sulphate of quina. In the relaxed states of the conjunctiva which succeed to the disease, the topical application of the vinum opii is useful.

After free depletion, Ricord recommends the eyelids to be everted, and the solid nitrate of silver to be passed over the surface of the palpebræ, and afterwards more superficially over the ocular portion of the conjunctiva; after this the surface of the eye is to be cleaned by a syringeful of cold water thrown over it, with a view of removing any portion of the salt that may remain upon the cornea. In the intervals of the dressings the eye is covered with a compress, soaked in a decoction of poppy-heads, and applied cold. M. Ricord recommends also the application of the extract of belladonna to the temples and round the orbits during the treatment, with a view of preventing any adhesions of the iris which commonly becomes affected, as well as other deep-seated structures of the eye. If the chemosis be great, he recommends a portion of it to be removed with a pair of curved scissors, a measure of which Dr. Mackenzie speaks also in very high terms.

Mackenzie, Lawrence, Brodie, Ricord and Wallace admit a true gonorrhœal inflammation of the iris. This generally occurs in scrofulous patients labouring under gonorrhœa or gleet. Sometimes it succeeds to gonorrhœal inflammation of the conjunctiva or the sclerotic, or occurs with that peculiar species of rheumatisms which sometimes accompanies a gonorrhœa. It very commonly alternates with affections of the joints, and an acute attack of synovitis frequently cures or very much relieves the inflammation of the eyes. The frequency with which this species of disease succeeds to mild gonorrhœal ophthalmia, and the facility with which adhesions of the iris take place, render it necessary that in the various forms of gonorrhœal ophthalmia we should adopt Ricord's plan of keeping the pupil dilated by the external application of belladonna. "This affection of the eye is exactly the same as rheumatic inflammation of the sclerotic and iris occurring independently of gonorrhœa. Both this and the mild purulent inflammation of the

conjunctiva are to be regarded as rheumatic affections of the organ excited by gonorrhœa; that is, they take place in individuals in whom this constitutional disposition is shown by inflammation affecting either the synovial membranes or the fibrous structures of several joints." (Lawrence, p. 57.)

The treatment must consist, in the onset, of general and local bleeding, suited to the urgency of the symptoms; calomel and opium, so as rapidly to affect the system, and the application of the extract of belladonna. (Mackenzie.) Our chief reliance must be on mercury united with opium and antimony, and if there exists a rheumatic state of the system, colchicum and turpentine will be useful. (Wallace.) Sir B. Brodie places great reliance on colchicum. As local applications, warm decoctions of poppy are generally most agreeable to the patient's feelings, on account of the intolerable pain that sometimes attends the disease. "When the inflammation is checked blisters may be advantageously employed, and the cure may be completed by the Plummer's pill, with mild aperients and regulated diet." (Lawrence.)

Primary Syphilitic Sores.—Though renouncing an indiscriminate mercurial treatment, most modern surgeons, more particularly those of this country, look upon mercury as the most powerful and certain therapeutic agent employed in a vast majority of both the primary and secondary forms of syphilis.

"Why," inquires Mr. Parker, "is mercury to be employed in the treatment of primary syphilis? To hasten the cicatrization of the ulcer, and to diminish the risk of secondary symptoms." The first point is established by the practice of most modern surgeons both British and foreign. Ricord Desruelles, and Cullerier, all partizans of the simple treatment, recommend mercury when the sore is indolent, does not cicatrize under the simple plan, when its edges are hard and elevated, or the sore leaves behind it in healing an indurated cicatrix.

"If," says M. Ricord, "we calculate the cure of a chancre from the day the ulcer has cicatrized, without troubling ourselves about what may take place after, it will be sometimes apparently quicker by the simple treatment without mercury, and in the hospitals, the patient will be a less time under treatment; but if we date the cure at the period when all induration has disappeared, we shall find the difference enormously in favour of the mercurial treatment; the induration continuing in the first instance an indefinite period, and giving rise much more frequently to secondary or constitutional symptoms. I have recourse to mercury whenever a certain degree of induration accompanies a chancre, when it does not speedily cicatrize, or when the induration remains after its apparent cure.

Mr. Carmichael exhibits it under the following circumstances; 1st. In cases of the simple primary ulcer, when this does not yield to rest, the antiphlogistic treatment, and astringent washes. After the third or fourth week Mr. Carmichael gives mercury in alterative doses with the same views that he would prescribe it for any indolent ulcer which was not venereal. This ulcer, amounting to nine tenths of the cases we meet with in practice, is characterised by its want of induration and phagedæna. 2dly. When the papular and pustular eruptions become scaly, and obviously on the decline, about the fourth or fifth week, and not yielding to sarsaparilla. 3dly. In iritis, so as to produce its full effects upon the system. 4thly. In cases of nodes with inflammation of the periosteum. In the phagedæmic forms of primary syphilis, Mr. Carmichael believes mercury in all stages and forms of the affection to be a most deceitful and dangerous remedy. 5thly. For the primary sore, the Hunterian chancre, with hardened edges and base, the "chancre indure" of M. Ricord, and for the scaly eruption which attends it, as well as the deep excavated ulcer of the tonsils, nodes, and other symptoms belonging to this form of disease, mercury in full doses, may be es-

teemed a certain and expeditious remedy.* M. Ricord, admitting as he does the uncertainty in which we still remain with regard to the particular kind of sore in which mercury should be exhibited, remarks that in this form the surgeon who omits the full mercurial treatment, ought to be considered responsible for the constitutional symptoms which are almost sure to succeed it.

The universal tendency of modern experience, then, is in favour of the mercurial treatment of this form of disease, and although this as well as the other forms of primary sylphilis may get well without mercury, still the cure is uncertain and prolonged, and generally leaves behind it a hardened cicatrix, prone to ulcerate again. It is doubly important to heal this, as well as the other primary forms of syphilis speedily, since it is incontestably proved that the risk of secondary symptoms occurring is in direct proportion to the period a primary sore remains open; a primary sore closing with a hardened cicatrix is certainly not cured.

Mercury should not be given during the state of fever or local inflammation which may be present during the first days of venereal ulcers, nor till the patient is prepared for it by an appropriate regimen. It is also generally improper to use mercury during the ulcerating stage of chancre; it must be abstained from till the sore has become stationary and indolent, or till it assumes a disposition to heal.

The Local Treatment of Primary Venereal Sores.—In the majority of cases of simple primary venereal sores, during the first period, the nitrate of silver is the best application, and Carmichael, Ricord, Wallace, Key, Parker, and Mayo, support this practice. Ricord and Carmichael both state that the sooner an ulcer which secretes a morbid poison capable of infecting the constitution is healed, the more likely is the constitution to escape contamination. "When, therefore," says Mr. Carmichael, "a patient applied to me with an ulcer in its first stage, while yet excavated and secreting lymph, I instantly endeavoured to destroy its entire surface by a free application of lunar caustic; and I observed that when the eschar separated, I had in general the satisfaction of finding a simple sore instead of a poisonous one." (Dublin Med. Press, No. 67.) If the sore be much inflamed, the caustic is not to be used till the inflammation has been subdued by rest, aperients, general bloodletting if necessary, abstinence, and the mildest topical applications, as bread and water, or the turnip or carrot poultice, the liq. plumbi diacet. dilut., &c., &c.; should the ulcerative stage be passed, and granulations have sprung up under the treatment, which is sometimes the case, the nitrate of silver is of course to be omitted.

Mr. Key thinks mercurial washes in the early stages of chancre are peculiarly noxious. The morbid action is rather increased than allayed by them, secretion being rendered more copious, and the ulceration more inclined to spread. Ricord condemns the use of ointments generally in the ulcerating stages of chancre; some remedies are employed by him, Cullerier, Desruelles, &c., in the French hospitals, which are found highly useful in the earlier stages of chancre; amongst these may be mentioned the opiate cerate, and the aromatic wine with tannin or opium. The opiate cerate is composed of an ounce of the vinum opii to a pound of adeps, and is very useful as a simple dressing to irritable primary simple sores; a strong decoction of poppy, to which may be added some of the extract of opium, in the proportion of eight grains to the half pint may also be employed. Ricord's favourite dressing is the aromatic wine of the French Codex; this is made by digesting four ounces of aromatic herbs (rosemary, rue, &c., &c.,) in two pints of red wine for eight days. In certain circumstances, two scruples of pure tannin are added to eight ounces of the wine; and when a sedative application is wished for, half a drachm of the purified extract opium. The patient is directed to wash the ulceration with these applications gently, without making

* See Art. 58, of our first No.

them bleed, and afterwards to cover the surface of the sore with some fine soft lint moistened with the wine, without making it too wet. To these local remedies M. Ricord attributes the effect of hastening cicatrization, of diminishing the secretion of pus from the surface of the sore, and by their astringent properties, acting upon the surrounding tissues, of preventing the extension of the disease and the formation of fresh chancres, a circumstance very common with the ordinary modes of dressing.

To well understand the principles on which the local as well as the general treatment of primary sores must be conducted, the surgeon must constantly bear in mind the two phases of chancre, as established by Ricord and Dr. Wallace, and admitted by Mr. Carmichael, and Mr. Key, and most modern writers. In the first stage we have to do with a specific sore, irritable, and poisoned, and poisonous, liable to be irritated by the least stimulus, whilst in the second we have a simple ulcer, destitute of all these characters.

There are some forms of primary sores to which Mr. Key recommends mercurial dressings in the ulcerating stage. These he employs not as a general rule but as the exception, in sores indolent not sensitive, and secreting but sparingly. Ricord also alludes to this species of primary ulcer, which he describes as indolent and stationary, and in which the secretion is dried up; in these circumstances the aromatic wine, with this exception almost universally employed by him as a general dressing, is to be abstained from, and the opiate cerate or emollient fomentations employed in its stead. We have been in the habit of treating this species of primary sore, which is frequently met with at the orifice of the urethra, by washing its surface with a weak solution of the chloride of lime, and then dressing it with some detergent ointment.

The indurated primary sore demands a treatment both local and general, in some measure different from the ordinary forms of the disease. This, "the classic Hunterian chancre" of Ricord, the indurated primary syphilis of Dr. Wallace, is the form of primary disease for which every author recommends a full mercurial treatment till the sore has healed without induration of the cicatrix. In our account of this species of ulcer, it must be recollected that we limit the expression "indurated" to an ulcer that is so from the commencement of the disease, and do not apply it to those sores which have become indurated from the repeated application of stimulating dressings.

Ricord recommends as a dressing to the simple indurated chancre a pomade of calomel and opium. Dr. Wallace also countenances this under the regulations laid down for the treatment of primary sores generally. If suppuration is abundant, the sore is to be washed previously to the dressing with the aromatic wine; should the sore be irritable or inflamed and the ulceration disposed to spread, aqueous solutions of opium, anodyne fomentations, &c., must be used. The application of the nitrate of silver is not so beneficial in this as the other forms of disease, nevertheless, both Ricord and Wallace advise its use. The former says, "it modifies favourably the surface, and frequently arrests the spread of ulceration;" after the ulcerating stage has passed, great advantage will be derived from the gentle application of the sulphate of copper. In the more decided chancre, i. e. the indurated sore of which we are speaking, Mr. Key thinks the "disposition to be set astray is less, and the syphilitic characters being more developed, mercurial application agrees better with them, and may be applied with less apprehension of the ulceration extending.

Dr. Wallace gives some good diagnostic marks by which we are enabled to distinguish between the induration which is the natural attendant upon this species of sores, and that which is produced in ordinary simple sores by the injudicious application of remedies. "We may always distinguish by the history of the case, and by the character of the areola such indurated ul-

cerations as are connected with irritation or inflammation. Thus, if indurated primary syphilis be not attended by these morbid states it will not be surrounded by an inflamed, but by a callous or livid white areola, with or without a whitish line at the very edge or margin of the ulcerated surface; or else the skin surrounding the ulcer will present its natural appearance.

The Phagedænic Ulcer.—The local remedies best suited to the different varieties of simple phagedæna are the nitrate of silver, either solid or in saturated solution, applied with a pencil; the pure nitric or nitro-muriatic acids, the white muriate of antimony, or a saturated solution of the oxymuriate of mercury in alcohol. In the sloughing or in the foul varieties of the simple phagedæna, Ricord recommends as very serviceable alternate dressings of the aromatic wine and a detergent ointment: the surface of these sores may be washed frequently with strong solutions of the chlorurets of soda and lime.

In the inflamed varieties of phagedæna with white or black slough Dr. Wallace thinks the application of the nitrate of silver hurtful, and in fact we should do well to observe what he says of its use in phagedæna generally, that used too long or repeated too often it will produce consequences in some respects as unpleasant as those which result from an overdose of mercury. In the inflamed phagedæna with or without slough a purely antiphlogistic treatment, with anodyne fomentations and poultices, is the safest practice; leaving the application of stimulants and caustics till all local and constitutional irritation has subsided.

The irritable phagedænic ulcer demands a local treatment different from that of either of the before-mentioned varieties. Ricord and Wallace employ the nitrate of silver, the liquor arsenicalis, or the strong nitrous acid. These, however, frequently dispose the ulceration to spread, particularly where the sore is surrounded by a diffused areola. When this is the case, the opiate cerate, or strong aqueous solution of opium may be employed, whilst this remedy should be given freely at the same time by the mouth. Amongst preparations of this character, Dr. Wallace speaks highly of mercurial ointment with ext. opii, a drachm of the latter to an ounce of the former, or the mel. rosæ with laudanum. As a general application to these sores, in our own practice, we have succeeded better with turnip or carrot poultices than with almost any other form of remedy. There are, however, individual circumstances depending on the character of the sore, its degree of indolence, irritability, or inflammation, in which the remedies we have mentioned will find their application.

The writers before us are divided as to the propriety of the mercurial treatment in phagedænic primary syphilis, Mr. Carmichael agreeing with the French school in rejecting the remedy as most dangerous and deceptive in every variety of the disease.

Sir G. Ballingall, after an experience of many years, informs us in his recent work that he quite accords with Mr. Carmichael. Mr. Key, in his report of the primary syphilitic cases occurring at Guy's Hospital, states that in the constitutional treatment of these sores mercury is wholly inadmissible.

We perfectly agree with these authors in condemning the use of mercury generally in phagedænic primary syphilis, yet we are of opinion, and the results of every day's experience confirm this opinion, that there are cases of this character frequently occurring in which mercury, judiciously employed, is our best remedy; and this is just the way in which Ricord views the question, when, speaking of phagedænic chancres, he says (p. 573) "there are circumstances under which a mercurial treatment is followed by the best results, and this fact is constantly proved by the practice of those who avow the most deadly hatred of mercury." It remains, however, to be determined what are the forms of phagedæna in which mercury may be employed with advantage. Ricord thinks it impossible in the present state of science to

point out with certainty what these circumstances are. If the disease continues to advance in spite of the usual remedies judiciously employed, as a sort of forlorn hope he has recourse to mercury, first in form of local application and subsequently by the mouth or friction. He is regulated in the continuance of the remedy by the effects produced, continuing it if the disease appears inclined to yield, or giving it up should it continue to extend. Mr. Lawrence, whilst he condemns the indiscriminate use of mercury in phagedæna, believes there are circumstances in which it may be employed with advantage, though he, like Ricord, does not seem able to point out what these circumstances are.

The recorded experience of most modern writers on syphilis, to whatever school they may belong, proves that there are constantly occurring cases of phagedæna so intractable under the ordinary treatment that mercury is fled to as a last resource, and there are many of these in which it is perfectly successful.

Dr. Wallace has endeavoured to discriminate between those forms of phagedæna in which mercury should be used and those in which it should be abstained from: he believes that all the varieties of phagedænic primary syphilis have hitherto been very much confounded together, to the injury of the patient and the confusion of the practitioner.

In the irritable variety of simple phagedæna, without slough, mercury is to be interdicted. Dr. Wallace believes that in this form of the disease the remedy is always injurious, and if persevered in produces an increase "of irritability, local and general, and hectic, and secondary symptoms of a very unmanageable kind may result." In this form, conium, hyoscyamus, opium, and Dover's powder, but more particularly opium, locally and generally, are the chief remedies to be relied on, with sarsaparilla in conjunction with the iodide of potassium, or the mineral acids, or Mr. Carmichael's favourite remedy, the cold compound or simple infusion of sarsaparilla in lime water. It is in these cases that Mr. Lawrence also thinks sarsaparilla most beneficial. In the three forms of phagedænic syphilis without slough, Dr. Wallace recommends a full course of mercury in the first or simple form; an active antiphlogistic treatment to precede the mercurial treatment in the second, or inflamed variety; and measures calculated to tranqillize the system in the third, or irritable.

In the "simple phagedænic primary syphilis, with white slough," Dr. Wallace recommends mercury to be freely exhibited, "wherever it may be seated and of whatever extent it may be." With the constitutions, however, in which the sore occurs mercury is very apt to disagree.

The characters of the "inflamed phagedænic primary sore with white slough," are a slough of white colour at the junction of the sore with the living parts, which parts are in a state of inflammation. The distinctive character of the sore is to be drawn from the colour of the slough at the junction of the ulcerative with the living parts, and not from the colour of the slough on other parts of the sore, since these occasionally become black or green from the exposure of the surface to the atmosphere. The first indication in the treatment of this sore, is the reduction of the inflammation by an active antiphlogistic treatment employed, according to the circumstances of the case, generally and locally. We would beg, however, the attention of the reader more particularly to the point we are now endeavouring to make more clear; viz.. the indications for the use of mercury in the different forms of phagedæna; and with respect to the sore under notice, Dr. Wallace states that he has ascertained "an important fact—that mercury, if given in full doses, or so as to produce rapidly its effects on the system, will control, even in its most inflamed state, the progress of the phagedænic disease just described.

In the "irritable variety of phagedæna with white slough;" Dr. Wallace

also thinks a short but full course of mercury the best remedy, if the case has not been previously mismanaged. When it is used it must be very carefully watched, and combined with large doses of opium, Dover's powder, cicuta, hyoscyamus, sarsaparilla, and the carb. of ammonia, whilst the local treatment must be anodyne and unstimulating.

The "simple primary phagedæna with black slough" of Dr. Wallace, is analogous to the slough ulcer of M. Bacot, and is evidently merely a variety of the true Hunterian chancre, an indurated primary sore, with a dark or livid coloured slough. Its characters are, "much greater induration of the surrounding parts than any of the other forms of primary phagedæna, scarcely any inflammation, and attended by very little sensibility." Dr. Wallace states that it requires directly any other form of treatment than the regular primary disease. It is often very much benefitted by the internal employment of the nitrous or nitro-muriatic acids; but "the actions of reparation and perfect cicatrization may be produced in it with much more certainty, in a much shorter time, and with less expense to the constitution, by a mild and well-regulated course of mercury than by any other means.

The two remaining forms of phagedæna are the inflamed irritable varieties with black slough, the sloughing phagedæna of authors generally, the gangrenous ulcer of M. Bacot, and the "chancre phagedenique gangreneux" of Ricord. In these forms all writers agree in condemning the use of mercury; the disease is to be treated on the principles which should regulate us in the management of similar diseases arising from causes not syphilitic.

Treatment of constitutional Syphilis.—The phenomena of constitutional syphilis are divided by M. Ricord into secondary and tertiary.

Secondary symptoms, or those of general infection, arise when the venereal virus has undergone some degree of modification by being mixed with the blood and thus producing what M. Ricord terms the "syphilitic temperament." Secondary syphilis attacks the skin, the mucous membranes, the eyes, the testicles, &c. The great peculiarities to be observed in these forms of the disease are that they are not capable of being transmitted by inoculation, but from parent to child by hereditary taint.

Tertiary symptoms appear at an indeterminate period, succeeding the primary disease, but commonly not till a long period after this has been cured, and in a majority of instances, not till after the secondary symptoms have appeared, or whilst they are still present. The tertiary symptoms are, nodes, tubercles of the skin or cellular tissue, periostoses, exostoses, diseases of the bones and fibrous system generally, and many internal affections not clearly defined. The tertiary symptoms are neither capable of propagation by inoculation nor of transmission by hereditary taint—at least under any specific form of venereal affection.

It is in this latter class of affections that M. Ricord thinks the iodide of potassium so worthy of confidence.

He believes the probability of the occurrence of secondary symptoms to be in some measure in proportion to the time that the primary sore remains open. He has never seen a case in which the primary sore healed in five days that has been followed by secondary symptoms; hence, says M. Ricord, the best rule that can be given for the prevention of secondary symptoms is the radical cure of the primary disease, without induration of the cicatrix, in the shortest space of time possible. And for this purpose he speaks with more confidence of mercury than any other remedy, but considers it valuable rather as a remedy calculated to cure the primary disease than to prevent the secondary.

It is to a mercurial treatment in confirmed constitutional syphilis, says M. Ricord, that we must give the preference, provided there are no contra-indications. The deductions made by M. Humbert, from the results of M. Biett's practice at the Hospital St. Louis, are: That of all remedies, mer-

cury is the most efficacious in curing constitutional syphilis which exists without acute inflammation, but that it is better abstained from in irritable subjects, feebly constituted. It cannot be denied, continues M. Humbert, that the preparations of mercury cure confirmed secondary syphilis more frequently than any other remedy. Mr. Mayo says, "of the remedies for constitutional syphilis, mercury is so far the most important that it is the only one, however rarely it may be necessary to use it with this object, through which the immediate extinction of constitutional lues can be anticipated; and that besides as a repellant of the disease, it is one of the most efficacious." (p. 61.)

The preparation of mercury, chiefly employed by M. Ricord in the treatment of constitutional lues is the proto-ioduret, the hydrargyri iodidum, of the London pharmacopœia. He commences with one grain for a dose, combined with opium, and carries it as far as six in the day, but does not exceed this quantity. Cullerier prefers the iodide in the constitutional forms of the disease, administering it, at the venereal hospital, in the proportions of half a grain night and morning, combined with opium and guaiacum. In Biett's Hospital, the St. Louis, the bichloride is generally preferred in very small doses, and this was Dupuytren's favourite remedy.

Wallace, Ricord, Cullerier, and most other surgeons have lately employed the iodide of potassium largely in the various forms of constitutional syphilis. Ricord (Gazette des Hopitaux, March, 1839,) has established that its results are most happy in the tertiary forms of disease, in affections of "Mr. Hunter's second order of parts," in which he considers it the remedy "par excellence." Iodine, of itself, is a powerful anti-syphilitic, but, unless in a state of combination with mercury, is inadmissible in the treatment of the simple primary forms of disease. The iodide of potassium is chiefly employed by Cullerier in chronic syphilitic affections of the testicles, and of the inguinal and cervical glands, also in cutaneous affections and diseases of fibrous or osseous systems, which are of syphilitic origin. M. Cullerier thinks the effects of the iodide of potassium are less prompt than those of mercury, and hence, when the stomach bears it well, it requires a longer employ. He exhibits one grain of iodine with from two to four of the iodide of potassium, dissolved in one ounce of water, and given at intervals in any convenient vehicle during the day. He does not increase the quantity of iodine beyond two grains in the day, nor that of the iodide of potassium beyond ten.

The most complete account of the mode of administration of the iodide of potassium and its effects on different forms of constitutional syphilis, is that, given from the results and experiments made by Ricord, in the Gazette des Hopitaux, for March 19, 1839. M. Ricord employs the iodide of potassium in gradually increasing doses, commencing with ten grains dissolved in three ounces of distilled water, and given at intervals during the day in any convenient vehicle. This quantity may be increased or diminished according to the effects produced; when the remedy agrees, which it most commonly does, if the stomach be healthy, the dose is increased ten grains every two or three days till it is carried to a drachm, a drachm and a half, or even more, in the course of the day. The iodide of potassium, in full doses, occasions a sensation of warmth in the stomach, improves the appetite, accelerates digestion, and quickens the pulse; a common and almost constant effect is a great increase in the secretion of urine. Sometimes it produces a ringing in the ears, a slight pustular eruption or diarrhœa. When these occur, the dose must be diminished or the remedy abandoned altogether for a few days, till these symptoms have passed away; its use is then to be recommenced in smaller doses than before."

M. Ricord mentions the syphilitic deep-seated tubercle as the first disease in which he has extensively tried the iodide with success. The original seat of these tubercles, Mr. Babington says, is in some structure below the sur

face of the cutis, probably in the sebaceous glands. Ricord speaks merely of this disease as deep-seated tubercle; it belongs to his third order of parts, is prone to inflame and ulcerate, and terminate in the formation of foul, spreading, destructive sores. Before the tubercles have become inflamed or softened, whilst they are still indurated, M. Ricord has constantly succeeded in dispersing them by means of the iodide of potassium with small doses of the iodide of mercury. He employs the iodide of mercury in one grain doses, with three, four, or five of the ext. conii, and the iodide of potassium in gradually increasing doses. The mercury is rarely continued for a longer period, and very commonly M. Ricord makes use of the iodide of potassium alone. When the tubercles have become ulcerated, M. Ricord still relies upon the iodide of potassium as his principal remedy. The local treatment, however, is of great importance, and must be directed under the views which would regulate us in the management of primary venereal sores.

M. Ricord thinks that mercury is generally inefficacious in the tertiary forms of syphilis. M. Biett has found in his extensive opportunities for observation, that mercury did not produce any marked effect over the syphilitic tubercula. He mentions some cases treated successfully by the arseniate of soda.

The tubercular forms of syphilis commonly occur in conjunction with very considerable disorder of the general health, and it is scarcely necessary to notice again the stress laid by all the authors before us on the propriety, and indeed absolute necessity of attending to this before any specific treatment is adopted.

Amongst other forms of disease more particularly benefitted by the iodide of potassium, M. Ricord mentions nocturnal pains in the bones, and diseases of the bones and periosteum. With respect to the former, when they have been fugitive, they have generally yielded to the iodide: when localized for a longer or shorter period, this remedy, in conjunction with blisters over the affected parts, has most commonly succeeded. M. Ricord believes nocturnal pains in the bones to result from a true inflammation of the osseous tissue, from syphilitic taint, and hence he considers these pains as the first symptoms by which such disease is characterized. These pains are commonly attributed to the prolonged or excessive use of mercury, but M. Ricord frequently meets with cases of diseases of the bones and periosteum in various stages at the Venereal Hospital, in patients who have not taken a grain of mercury, and who have had chancre as a regular antecedent to the disease. Here, as in syphilitic caries, M. Ricord relies chiefly upon the iodide of potassium; he believes that mercury is generally injurious, at least, he has abandoned its use, and succeeds better with the iodide. The iodide of potassium merits, in M. Ricord's view of its properties, in the treatment of the tertiary forms of syphilis, all the confidence that mercury has obtained in the treatment of the secondary, to which forms M. Ricord considers the iodides of mercury are particularly adapted.

We shall take this opportunity of mentioning M. Lucas Championniere's account of the plan adopted in the Venereal Hospital of treating buboes with blisters and a strong solution of the bichloride of mercury. This plan, originally proposed by M. Malapert, a French army-surgeon, consists in applying a small blister over the centre of the tumour, the next day removing the epidermis which has been raised by the blister, and applying a small compress over the denuded surface, soaked in a solution of the bichloride of mercury, in the proportion of twenty grains to the ounce; this compress is kept in place by straps for two hours and is then removed; at this period an eschar involving the skin to a greater or less depth is formed, which, on separating, leaves the bubo very much diminished in size, and is generally followed by its total disappearance. After the eschar has been formed, the swelling may be covered with a cold lotion or poultice. This plan of dis-

persing a venereal bubo has now the sanction of very great experience drawn from its successful employment in the French army, and for seven years in the great Civil Venereal Hospital, under the direction of Cullerier and Ricord. Cullerier speaks in very positive terms of this remedy from his own observations of its utility, and it remains for us merely to indicate those circumstances in which it is most likely to succeed. It is well known that the sympathetic bubo, succeeding to gonorrhœa, is not so prone to suppurate as that following chancre, and here M. Ricord prefers attempts at dispersion, to be made first by pressure with the ammoniacum and mercury plaster; if these do not quickly accomplish their object, or the tumour tend to increase, the blister with caustic is used. In all forms of the venereal bubo, except where matter has actually formed, or the surface is very much inflamed, it may be employed. Resorted to early in the disease, Cullerier states that he does not recollect seeing it fail in producing a total dispersion of the tumour.

British and Foreign Medical Review, Oct, 1840, *p.* 382—420.

37.—PRACTICAL HINTS ON THE TREATMENT OF STRICTURE OF THE URETHRA.

By Bransby Cooper, Esq. F.R.S., Surgeon to Guy's Hospital.

[The remarks of this truly practical surgeon, in the *Guy's Hospital Reports*, for Oct., 1840, form an interesting appendix to the 53rd article in our first number, by the same author. We there gave a condensed account of his views on some important points of practice, and we now add what he further states on the same subject. He says,]

It must be continually borne in mind, that all danger is not obviated by the avoidance of force; for the gentle use of the instrument may produce equally bad effects, if it be injudiciously handled. On first examining the stricture, either a silver catheter or a bougie may be used for the purpose of ascertaining its seat or condition. No. 6 is the best sized instrument for this object: it is nearly of the size of the urethra, and is much less likely than a smaller one to get entangled in the lacunæ of the canal. When this instrument is first passed down to the stricture, gentle pressure should be exercised, and, if its passage be resisted, should be continued for a few minutes. If the obstruction be owing to muscular spasm, continued pressure of three or four minutes will be sufficient to overcome the contraction: if after that time, however, the obstacle does not yield, its persistence evidently depends upon the density of an adventitious deposition. Where, in such a case, no great pain is experienced by the degree of pressure hitherto employed, and no bleeding occurs, force may be used, to the full extent considered safe by the surgeon: but if this is still ineffectual, no further mechanical means should be had recourse to (unless the bladder be much distended and the symptoms of retention urgent,) but leeches to the perinæum and a purgative draught should be prescribed. It generally happens, in cases of no very long standing, that great benefit is at once derived from this treatment; and I have frequently seen the patient recover after it has been adopted for three or four alternate days: but in cases of older date, great difficulty of micturition is often found to remain, in spite of it. To combat this symptom, the application of the bougie should be continued; as it is now ascertained that the difficulty of directing the instrument into the bladder depends upon the density of the stricture, and not upon muscular contraction. A new indication now therefore presents itself, viz: the removal of the adventitious matter: this is most readily effected, by maintaining an equable degree of force upon the surface of the stricture, which induces inflammation and softening down of

the newly-formed substance. In the course of a few days, suppuration will be found to have been set up; after which, five or six repetitions of the application of the instrument will be sufficient to effect its passage through the obstruction; and thus will be performed a cure of stricture in what I may term its second stage.

It is in this second stage that the precaution which I have alluded to above is necessary; for it is requisite to be as cautious with respect to the precise direction given to the instrument when thus gently applied, as when force is used to push the catheter or sound into the bladder; inasmuch, as without proper attention to the direction of the instrument, a false passage is likely to be produced in the one case as in the other. If gentle pressure be repeatedly made against the side of the urethra, instead of upon the stricture itself, the mucous membrane naturally yields to the continued application of the instrument; and a new passage is gradually produced, which, by violence, is frequently effected at once. When an opening has thus been formed in the urethra, it is not a necessary consequence that any train of symptoms should at once point out the error which has been committed. On the contrary, from the comparative facility with which the instrument passes onwards towards the bladder, the surgeon fancies, at first, that he has overcome the true source of obstruction, and indeed frequently succeeds in reaching the bladder with his instrument, having pushed it again into the urethra, or through the prostate gland: a flow of urine then ensues, which gives him reason to suppose that the cure is complete. On the other hand, however, the urine is sometimes extravasated, as soon as the false passage has been made; an abscess if formed in the perinæum; and all the symptoms follow inseparable from such a state of things, requiring at once the laying open of the perinæum, and the evacuation of the extravasated urine; and leading to the abandonment of the gentle mode of treatment, for the cutting through of the permanent stricture—an operation which I have before described.*

In cases where a lengthened false passage has been made into the bladder, and where no extravasation of urine has followed, it becomes very difficult for the surgeon to ascertain, with certainty, that the fistulous passage exists; and I believe that this can only be done by those who are in the habit of frequently passing instruments into the bladder. As, however, such passages are frequently made in the upper region of the urethra, their false course may be ascertained from the fact, that a straighter instrument than the one usually employed will pass through them with facility: and that when in the bladder, the instrument wants the freedom of motion exhibited by the catheter which has been passed through the urethra only. If the false passage has been made in the lower part of the urethra, the instrument will be found to move in the segment of a larger circle than usual; and its escape from the urethra can always be ascertained by passing the finger into the rectum. False passages of the lower region are generally the result of the forcible use of the instrument for strictures in or near the bulb; while those of the upper part are a consequence of the continued pressure made upon the obstruction, with the penis drawn forward to fix the point of opposition. In both of these cases, although the patient, from the absence, at first, of any difficulty in emptying his bladder, may imagine himself permanently relieved, he is doomed to be very quickly disappointed; should the surgeon allow only a few days to elapse without passing the instrument, the obstruction to its progress, and the difficulty in voiding the urine, recur; for the new canal is incapable of remaining many days pervious, without the frequent passage of the catheter; unless, indeed, a mucous lining membrane is formed within it; to produce which, a considerable length of time is necessary. A case of this kind occurred to me; in which, after having passed the instrument for several weeks, in the belief that I had re-established the natural canal, it at length,

* See Art. 53, of our first No.

on a sudden, took a new course into the bladder: and this proved to be through the natural urethra. Probably this took place from the stricture having been spontaneously cured by the removal of the irritation from the urine, which for some time previously had passed through the new canal. The patient subsequently suffered no inconvenience from the false passage which had been made; nor had I ever, after the discovery, any difficulty in passing the instrument into the bladder through the natural canal. I cite this case, not because I believe it to be of rare occurrence, but merely because the discovery of it is uncommon. I think, indeed, these false passages to be so frequent, as to be present in most of those cases where difficulty of passage continues whilst the patient is under treatment: at all events, post mortem examination of the urethra, in cases of stricture, show that these deviations from its natural course are extremely common.

In cases of stricture, which resist the application of the common bougie or catheter—for sometimes, owing to the great density of the adventitious substance, these instruments will not succeed in causing the latter to soften down, even though they may be used for several days or even weeks in succession—in such cases, the caustic bougie must be had recourse to; not merely as an escharotic, to decompose the part, but that it may, by its peculiar action, induce inflammation, softening down, and suppuration. A successful result generally follows a few applications of this instrument: and although in some cases it may be delayed, I have never seen it fail to produce, sooner or later, a beneficial effect. There are occasions in which its efficacy is exhibited with singular rapidity. For instance, in a case of obstinate permanent stricture, for which I had been for several weeks attempting to pass instruments without success, I at last easily succeeded in introducing a catheter into the bladder, after passing eight times only the caustic bougie; and the patient ultimately recovered, and has never had any recurrence of the disease.

The caustic bougie is also of the greatest benefit in irritable stricture, which is always attended with bleeding on the gentlest application of the instrument, and with frequent sudden spasms, occurring without any apparent cause, beyond slight exposure to cold and damp, or some excess in the use of wine or spirits, and which render micturition difficult. I need scarcely observe, that the cautions I have described above, as to the precise application of instruments to the stricture itself, are most especially to be observed in making use of the caustic bougie; or that a false passage is very likely to be produced, if it be made to press and act on the urethra itself, instead of on the adventitious matter.

With respect to those cases where the symptoms are urgent, I have already expressed my conviction of the propriety of forcing a catheter into the bladder when the stricture is posterior to the deep perinæl fascia, and of laying open the membranous portion of the urethra when its seat is about the bulb, though it may not in the latter case be attended with greater severity of symptoms. I have also described the mode in which I have usually performed this latter operation. (See Article 53, of our first No.)

[Interspersed amongst these remarks are very interesting cases, which practically prove the truth of every thing Mr. Cooper advances. Five very interesting cases are given in which the posterior parts of the canal were laid open, the operative proceedings of all of which may be elucidated by the following observations relating to Mr. F., a native of Barbadoes, who came to England expressly for the purpose of putting himself under Mr. Cooper's care.]

Upon examination, I found the perinæum and scrotum much enlarged, indurated, and perforated by three or four fistulous openings, through which his urine partly passed, but in part it dribbled from the natural passage. On attempting to pass an instrument, I found the urethra impervious; the ob-

struction commencing about three inches from the orifice, and resisting every attempt I made to force the instrument through it: and I therefore explained to the patient at once the necessity of performing an operation, as the only hope of effecting a permanent cure.

The patient being placed upon a table, and secured as for the operation for the stone, I made an incision into the perinæum; commencing from a fistulous opening in the scrotum, and extending it in the course of the raphe, close to the anus; thus completely laying open the perinæum. I now tried to force a catheter through the stricture; being less afraid now of doing injury by violence; as with my finger in the incision I had made, I should have been able to prevent the instrument tearing the urethra beyond the obstructed part. I could not, however, succeed in this attempt; and therefore proceeded to open the membranous part of the urethra, which I found difficult, from the depth which the perinæum had acquired, from the deposition of adventitious matter. I succeeded, however, in passing a female catheter into the bladder, and drawing off the urine which it contained; and having now completed the great object of the operation, I proceeded again to overcome the obstruction in the urethra; and this I effected by passing a sound into the stricture; and then directing the knife upwards from the perinæum, I cut through the substance which intervened between the point of the sound and the knife, until I felt the two instruments in contact, when with slight pressure, the sound passed forward, and upon withdrawing the female catheter, was introduced into the bladder. A silver catheter was now substituted for the sound, fastened in the bladder, and the operation completed. A considerable quantity of blood was lost during the operation, which was borne by the patient with a fortitude I had never before witnessed.

When placed in bed, an opiate was immediately administered; and he remained as well as could be expected until the evening, when a slight rigor came on. A coagulum passed from the bladder, with some urine; when he again became quite comfortable, and passed a quiet night.

From that period up to the present moment, I may say not a single untoward symptom has occurred: no difficulty has ever been experienced in passing fresh instruments into the bladder; and a No. 12, elastic-gum catheter was substituted for the silver one within ten days of the operation; No. 16 being the size which is now employed. No urine had passed through the perinæum for the last fortnight; the wound is nearly healed; the scrotum has resumed its natural size and condition, and the fullness about the perinæum nearly removed.

Guy's Hospital Reports Oct., 1840, *p.* 251—269.

38.—ON PHIMOSIS.

By C. A. Key, Esq., Senior Surgeon to Guy's Hospital.

[In Mr. Key's interesting report of syphilitic cases published in Guy's Hospital Reports, we find some most sensible and practical remarks. His paper in the last number of these reports, for October, 1840, is on phimosis. He first endeavours to show us that Hunter's opinions have been frequently mistaken—that he was not what is called a confirmed mercurialist, giving mercury indiscriminately and in large quantities in all cases of syphilis. Mr. Key says:]

I cannot, however, see in his writings any grounds for supposing that he recommended mercury to the extent of which he is accused: and though time has added both to our pathology of syphilis, and to our catalogue of remedies, his practice seems closely allied in principle to that of the present day.

It is a want of due attention in the perusal of his writings *as a whole*, and

of a due conception of his meaning, that has led us to consider him as a dangerous mercurialist. Probably, if the modern surgeon were closely and accurately to compare his practice with that of Mr. Hunter, the difference in the mode of wielding this formidable remedy might not be found to be great.

[Mr. Key makes the following excellent remarks on phimosis:]

One of the most common forms of phimosis is that which arises from a cluster of sores surrounding the extremity of the prepuce. They usually begin as small aphthous chancres, sometimes accompanying, though probably not depending on, gonorrhœa. They rarely exhibit throughout their course any signs of a very virulent poison, but possess the negative character of the aphthous sore, with the exception of the indurated base, which they always have, and which is caused by the loose reticular texture of the preputial fold. These sores yield to the same treatment as the common aphthous chancres; and when healed, usually leave the prepuce in a state sufficiently pliant to relieve the phimosis.

Any sore, accompanied by inflammation, may become the occasional cause of phimosis: but there are two conditions of phimosis that more especially involve considerations of importance; that in which a well-developed chancre occupies a large portion of the extremity of the prepuce; and a sloughing, or phagedænic state of sore, endangering the glans.

A large preputial chancre of the prepuce will sometimes involve so large a part of the extreme fold of skin, as to render it impossible to retract the prepuce while the sore remains, and improbable that the cicatrix will permit it to be drawn back when the sore is healed. The first thing that suggests itself, is the removal of the diseased portion of prepuce, and the substitution of a healthy for a diseased surface. The object, however, that is thus looked for is not obtained. In a few days, as soon as the inflammation caused by the operation is abated, the aspect of the cut surface begins to change, and gradually acquires the same character as the original sore. If the latter be phagedænic, and covered with a dense white slough, the incised part shows no disposition to granulate, but ulcerates at the edge, and exudes on its surface a layer of loose unhealthy fibrine. If the chancre has been in the stage of granulation at the time of the operation, the cicatrization of the incision is arrested by the granulations assuming a specified character; their edge being raised and hardened, and their base more or less indurated. If, from an actively spreading state, the sore be brought back by a course of medicine to a healthier condition, in which granulations seemed disposed to rise, the cut surface will show the same toward disposition, unless much blood be lost by the operation, or much irritation succeed its performance. It seems, that whatever character the original sore may possess, it is transferred, probably by a continuity of action in the vessels, to the incised part.

It is therefore unadvisable to cut away a portion of prepuce in a state of active phagedæna, or even when ulceration has stopped and has left the surface covered with a white slough.

[In many cases] the excessive action seems to have nothing of a specific nature: it appears to be common attack of inflammation, ending in gangrene, the poisoned sore acting merely as an exciting cause; for as soon as the slough is cast away, the sore puts on a healthy appearance, and heals quickly under the application of astringent dressings.

When the inflamed part is under the influence of the specific poison, the operation of dividing the prepuce, instead of staying it, as it does in the case of simple gangrene, seems for a time to increase it, by adding to the inflammation. Exposure of the sore, however, is indispensable, for the preservation of the glans; and should be performed as soon as the unhealthy nature of the sore is ascertained. This can be known by observing the nature of the discharge; which changes from the common secretion of chancre to a

dirty reddish or brown fluid, mixed with fine shreds of white slough. The nature of the secretion may of itself determine the propriety of dividing the prepuce; but more especially will it be required, if there be also much inflammation proceeding beneath the skin. The best dressing for sores of this phagedænic character are the balsams, or turpentine, with the addition of opium if severe pain or extreme irritability demand it. When they are disposed to bleed, warm olive-oil, mixed with an equal part of turpentine, checks the hæmorrhagic tendency, without increasing the inflammation or irritation of the part. This application is most efficient when the specific action does not predominate, and agrees best with a sore in which the action approaches to the black slough. When the phagedænic action is maintained by a high degree of local and general irritability, equal parts of Peruvian balsam and the sedative solution of opium form a most effective application. When the part can bear it, lint steeped in equal parts of port-wine and tincture of opium will sometimes check the ulceration, and induce a healthy surface.

The operation for phimosis presents but little choice; the mode of exposing the glans must be regulated by the state of the prepuce, and by the situation of the sore that is required to be exposed.

The main point in practising, is, to extend far enough the division of the inner layer of skin: and when circumcision is first performed, advantages will be obtained, by turning back the angles of the divided inner layer, and uniting them by means of very fine sutures, to the edge of the outer layer of skin. This proceeding shortens the process of cicatrization, and lessens the deformity.

Guy's Hospital Reports, Oct, 1840, *p.* 185—196.

39.—OPERATION FOR THE RADICAL CURE OF REDUCIBLE INGUINAL HERNIA.

By Bransby Cooper, Esq. F.R.S., Surgeon to Guy's Hospital.

[John Holman, aged 22, had for many years been troubled with a reducible inguinal hernia, which gradually increased in size and which no truss could keep up. On his admission into Guy's Hospital, Mr. Bransby Cooper thought it an excellent opportunity to perform the operation as recommended by M. Gerdy, not only on account of the large size of the abdominal rings, but also from the active duties of the patient, who was employed on the Greenwich railway.]

On the 10th of June, the patient was brought into the operating theatre, and laid upon a table, on his back, with his chest and thighs raised, for the purpose of relaxing the abdominal muscles. Mr. Cooper then commenced the operation by pushing a portion of scrotal integument before the forefinger of his left hand, through the external ring, into the inguinal canal, as high as he could pass it; and upon the finger he then introduced a director. A long needle, fixed in a wooden handle, and having the eye, near its point, armed with a double silk ligature, was then carried along the director to the very extremity of the invaginated skin, and was pushed through the tendon of the external abdominal oblique muscle and the skin, so as to make its appearance an inch and a half above Poupart's ligament; one end of the silk was then retained by an assistant, and the needle drawn back again into the inguinal canal, along the other end; when it was again pushed through the abdominal parieties, in a similar manner as before, about four lines distant from the other end of the thread, including necessarily so much of the skin between the two silks; which were now tied over a piece of bougie, so as to retain the invaginated portion of skin within the inguinal canal. A piece of lint, wrapped around a director and dipped in liquor ammoniæ, was passed

into the cul-de-sac of skin thus formed; and the surface well rubbed with it in order to remove the cuticle, and promote an inflammation in the cutis, so as to obliterate this integumentary canal, and to form a plug sufficiently firm to prevent the future descent of the hernia.

The application of the ammonia caused intense pain. The patient was now taken to his bed, placed in the same position as before the operation, and the scrotum well supported. An hour and a half after the operation, as great pain was still complained of, a grain of opium was given, which afforded but little relief. At nine in the evening, Mr. Cooper saw him; at which time there was great distress of countenance, profuse perspiration, and the pulse quick, but compressible; and there was not any pain produced by pressure on the abdomen.

13. Had passed a good night's rest, without the aid of sedatives; the discharge more copious, and bearing the character of pus. The scrotum was strapped up, so as to press against the margin of the opening from the invaginating portion of skin.

14. The liquor was removed, as purulent discharge was now most freely established; but the pressure on the part was desired to be continued, and every thing seemed to be going on favourably. But on the next day there appeared a degree of fulness about the margin of the opening, as if a portion of the inverted skin had descended; but without any descent of intestine and the hardness and swelling about the inguinal canal still led to the reasonable hope that the operation would prove successful. In this state he continued for several days, until the tenderness about the inguinal canal had sufficiently subsided to allow of a greater degree of pressure being made upon the part; the patient being still kept in the recumbent posture. After that time all uneasiness had left him; and the patient described that he felt the affected side as firm as the other, which the thickening in the course of the canal seemed to justify. On the 4th of July, a weak truss was adjusted to the part; and he was still desired to remain in bed; which he did for ten days more, when we could no longer keep him in bed. He remained yet a fortnight in the hospital, wearing his truss, and walking about without any descent of the hernia occurring: and left Guy's at the end of July, to resume his occupation on the rail-road, with the promise of being, at first, put only to slight work.

Guy's Hospital Reports, Oct. 1840, *p.* 270—275.

[The patient had indeed a slight return of the hernia which might be attributed to the truss given him being too weak. A stronger one however, completely succeeded in keeping up the bowel: while formerly, no means whatever were available for that purpose. Upon the whole, Mr. Cooper thinks the case a very successful one.

The following is M. Velpeau's method of operating for the radical cure of hernia. It differs somewhat from the foregoing method of Mr. B. Cooper.]

The method which he practised twice at the Hospital la Charite last July, is composed of three distinct parts; of scarifications of the interior of the sac, and particularly of the internal opening of this sac; of a compression of the whole length of the inguinal canal; and of a sub-cutaneous incision. The scarifications he borrowed from the ancients, or rather from what he had himself advanced in the year 1832, since from that time he had placed great confidence in them, and had only discontinued their employment when he perceived danger was likely to accrue to the patient from the opening of the sac. These dangers seemed no longer probable, when M. Guerin, giving the hint of the possibility of penetrating the bottom of the cavity by a simple punction of the teguments, expressed in his memoir his desire of practically applying the method of sub-cutaneous incisions to the radical cure of

hernia. In this manner M. Velpeau has practised the necessary scarifications. As for the compression, he applies it not only to the external ring of the inguinal canal, as the bandages are generally applied, but over the ring of the canal and the canal itself, M. Velpeau employs the celebrated bandages of M. Fournier de Lempdes, which, he states, have frequently sufficed for the radical cure of hernias. Thus the punction advocated by M. Guerin; scarifications in the interior of the hernial sac, in the inguinal canal, and in the iliac fossa; a compression by means of the bandages above named;—this constitutes the new method adopted by M. Velpeau.

This surgeon successfully operated on a patient in the following manner: He first introduced the forefinger into the ring of the great oblique some lines deep, forcing the integuments before it; a lancet, passed over the nail of this finger, was pushed obliquely as far as the iliac fossa; then drawing his finger out of the inguinal ring, M. Velpeau brought the edge of the instrument against the iliac walls of the abdomen, which he supported with the other hand, and then scarified them in several parts, forwards and inwards, but taking particular care to preserve a safe distance from the epigastric vessels. The lancet was then taken out precisely from the wound made at its entrance, and the operation was completed. Only a few drops of blood issued from the wound. The patient was placed in bed, and no accident supervened; while the slight wound cicatrized the next day. Fournier's bandage was applied, and the man has since walked and acted as if never afflicted. Some time subsequently, however, a second hernia ensued, and this patient who had many objections to the first operation, came voluntarily to ask for a similar. He was again practised on, and at the end of ten days he was convalescent. This young man has since been perfectly well, and has remained as a cook in the hospital, to show the radical cure to the visiting surgeons.

Provincial Medical and Surgical Journal, Nov. 14, 1840, *p.* 116.

40.—OXYMURIATE OF MERCURY IN STRUMOUS OPHTHALMIA.

By John Hamilton, M.R.I.A., &c.

[The author of this interesting paper first refers to the ordinary treatment of this obstinate disease, such as the use of some of the various tonics, bark, quinine, columbo, rhubarb, the preparations of iron, of iodine, and particularly of hydriodate of potass: mercury, leeches, blisters, issues, the citrine and other ointments, vinum opii, zinc, nitrate of silver, lead, &c., &c., and states that, although the disease is often cured by some of these various means, the case is often protracted and troublesome in the extreme. He says:]

The conviction on my mind is, and I trust I shall not be thought by practical men to overstate the fact, that the effect of the usual treatment, is certainly slow, and unsatisfactory, and this in the best hands. I have, therefore, been induced to lay before the profession some evidence in favour of a remedy whose efficacy appears to me superior to that of any other I have tried myself, or seen tried. I allude to the oxymuriate of mercury given in small doses, so as to act as an alterative or tonic.* By its use I have seen strumous ophthalmia disappear, which had resisted all the ordinary means for months, and even years, and this benefit has resulted in cases severe, but not

* To young children the dose has generally been the one-sixteenth or one-twelfth of a grain twice a day: to adults, the one-twelfth or one-eighth. The vehicles in common use are Tinct. Cinchonia, Rhœi, and occasionally Spirits of Wine. The medicine has been directed to be given one hour after meals. The only unpleasant effects from its use have been sickness of stomach or griping; by stopping the medicine for a day or two in both instances, and the administration of a little castor oil in the second, these effects have speedily ceased.

aggravated, in from two to three weeks, and without, in the majority of instances, change of air, or altered diet, a fact of great interest, as among the poor these are unattainable. A few well-marked cases will best enable the reader to form his own judgment.

Case 1.—Mrs. Smith, wife of one of the messengers of the Castle, and residing in one of the low damp rooms under the treasury chambers, brought her daughter, two years old, to me in September last. The child's appearance was very sickly, and she laboured under strumous ophthalmia of the right eye, in a severe form; the eyelids were red and rather swollen, the eyelashes matted together with dry scabby matter, and the intolerance of light was so great, that she kept the head down and turned from the light, with the eyes obstinately closed, and screamed violently at the least attempt made to examine them; when opened, the eyeball was rolled up, and all that was visible, was a small portion of the florid conjunctiva; the mother said there was a speck on the eye. She had been ill a year, the eye having become bad on the drying up of an eruption behind the ears. During the whole interval the eye had been bad, at times worse than at others, had been subjected to various treatment ineffectually, and was now worse than ever.

I wished the child to be removed from its present unhealthy abode to the country, but that could not be done. I therefore ordered the one-sixteenth of a grain of the oxymuriate, in decoction of bark, three times daily. Dilute citrine ointment between the eyelids at night, and a drop of vinum opii in the eye every morning, with occasional purges of jalap and scammony powder.

At the end of three weeks, she having taken the oxymuriate only a fortnight of the time, the improvement was most striking; "the eye was kept half open in a bright light, was not bloodshot, the appearance of the eyelids and eyelashes nearly natural." I ordered a repetition of the oxymuriate, and at the end of ten days she was quite well, a small grey speck in the situation of the ulcer being all that remained, and her general appearance greatly improved. Rather more than two months after this, I saw the child for hooping cough, and it was with difficulty that any remains of the speck could be discovered.

[Several other cases of a similar kind are then related; in one, three grains of the oxymuriate were given, and in the other, two grains. Mr. Goodall, of Wilmont, corroborates the opinion of Dr. Hamilton; Dr. Hudson, of Navan, and Dr. Lees also bear their testimony to its value. The author then proceeds to say:]

I trust I have now brought forward sufficient proofs, if not of the superiority of the oxymuriate above other remedies in strumous ophthalmia, at least of its very great value in the treatment of that disease. It would not be easy precisely to explain its mode of action; but it may be hoped that this will not be more objected to than bark in ague, or sulphur in itch: the physiological school of medicine, which has effected so much good, was faulty in being too ready to reject remedies whose action could not be rationally accounted for. To me, the oxymuriate of mercury seems to act as a tonic and alterative, and it is in the last especially that I regard it as superior to all other tonics, operating such a change in the scrofulous constitution, as, I truly believe, not only cures the local disease, but fortifies the patient against a recurrence, relapses being infinitely rarer, after cases so treated, than by any other way I am acquainted with. In the most recent systematic authors on diseases of the eye, I find no mention of its use as an alterative; it is therefore reasonable to conclude it to be unknown. Travers alone recommends, where the symptoms are acute, or the cornea opaque, calomel, blue pill, or the oxymuriate combined with opium, to slight *salivation;* but he considers the benefit of those mercurials, so given, to depend mainly on the combination with opium, as the irritation of the mercurial, given by itself, in sufficient doses for the purpose.

is too great. Salivation is, I think, if possible, to be avoided; when it has occurred in my practice, though there has usually been decided amendment, I have not trusted to it, considering such improvements as not likely to be permanent, and have, after discontinuing the remedy for some days, resumed it in much smaller doses. Mackenzie praises its *external* application as a lotion; but his chief reliance is on the sulphate of quinine, which I have sometimes used successfully, but having often found it fail, and from my conviction of the superior efficacy of the oxymuriate, I have latterly rarely given it, except in a few instances to alternate with the latter in very weakly children, and in this way I have found it of great use. Indeed quinine had been previously tried in most of the cases where the oxymuriate was afterwards successful. He objects, generally, to the use of mercurials, and, considering the debilitated habit of those labouring under this form of scrofula, the objection of this excellent practical writer to mercury, exhibited in the ordinary forms and manner, is doubtless well founded.

It will be seen from the cases given in this paper, that the treatment was never confined solely to the constitutional remedy, but that various local applications were resorted to. Such a combination I believe to be absolutely necessary, and that much may be done by judiciously changing those applications. In acute attacks, smart purging, cupping, or leeches to the temples, should precede the use of the oxymuriate; blisters on the top of the head or behind the ears, and in the more chronic form, a caustic issue on the vertex, are very beneficial, as also vin. opii, dropped into the eye, or a solution of the nit. argenti, of various strengths; and when there is ophthalmia tarsi, dilute or undilute citrine, or red precipitate ointment, sometimes even the combination of both succeeds, when either singly fails. Solutions of lead, zinc, &c., are often useful. To the natural objection that these and not the oxymuriate were the real agents of the cure, the answer is conclusive, that in all the cases I have adduced, most of these means had been tried, and had failed, till the oxymuriate was given with them. When there is much organic change in the cornea, where it is very turbid and vascular, the greatest perseverance is necessary.

It is entirely to Sir Philip Crampton that I am indebted for my knowledge of the utility of this medicine, and it was while serving my time as his pupil, that I had an opportunity of witnessing its effects; and subsequently in the South Eastern Dispensary, I had abundant opportunity of confirming the favourable impression I then received. He informs me that he learned it from Dr. M'Evoy, a surgeon, who practised many years ago in this city. That it should not be in more general use in this disease is certainly surprising. Sir A. Cooper, in his admirable lectures, praises it highly as a remedy in scrofula; but though specifying the various other local effects of that disease, says not a word of the strumous ophthalmia. The fact so well known of its forming the chief ingredient in the many anti-scorbutic nostrums of the quacks, would seem naturally to have led to its use where the eyes were effected by scrofula, yet such does not appear to have been the result. There are two authors, however, who are its strong advocates. One of these is Ware, and it is strange that his authority should not have led to its general adoption. The other is Van Swieten.

In the second volume of the medical Observations and Inquiries, is a very interesting letter in Latin, from Baron Van Swieten to Dr. Sylvester, on the use of the oxymuriate in the cure of an opacity of the eye. He relates the first case that led him to discover its value was that of a man labouring under syphilitic disease, whose cornea was opaque, and had been so for many years. While giving the oxymuriate, he observed the opacity to disappear. Incited by this success, he tried it in the case of a young nobleman, who was blind in consequence of both cornæ remaining opaque after a badly cured ophthalmia, and with the best result; as after eighteen months' perseverence

in the use of the remedy, with alternate purgation and blood-letting, whenever there was an accession of ophthalmia, the cornea became clear. He adds, "Thus it is clear that the human body can bear the use of this remedy without injury for a long time."

If the authority of these eminent men, that of Sir Philip Crampton, the cases here given, and the testimony advanced in its favour, should induce the reader to make a trial of the oxymuriate in the strumous ophthalmia, my object in writing this paper will be accomplished.

Dublin Journal of Medical Science, July, 1840, *p.* 425—439.

41.—TREATMENT OF ULCERS ON THE CORNEA.

By JOHN WALKER, Esq., Manchester.

[In the course of these very valuable lectures on the eye, of which we have already had occasion to avail ourselves in our first number, Mr. Walker says, speaking of affections of the cornea.]

Ulceration of the cornea being presumptive evidence of a state of constitutional debility, you will see the impropriety of resorting to the lowering treatment so generally recommended. The local stimulant treatment, before pointed out, is the one which can be alone employed, in most cases, with a probability of success, for depletion must certainly add to debility, and this again to extension of the morbid action. Where the ulcer is of some size and penetrating, it will be proper to apply the pencil of nitrate of silver to its edges. But usually, it is much better to apply it to the conjunctival surface of the lower lid, as by so doing you are more likely to destroy the morbid action which gives rise to the ulceration; and at the same time a portion of the dissolved nitrate is carried over and in contact with the ulcer, and produces most of the beneficial effects of its direct application to the abraded surface.

This treatment, efficiently employed by the surgeon himself, produces more real benefit than all the applications he might give to the patient with orders to inject upon, or otherwise apply to, the surface of the eye. Some surgeons entertain a most unfounded aversion to the employment of nitrate of silver, even when ulceration exists. Dr. Jacob imagines that its use is sometimes productive of a dark opaque speck upon the cornea, which is indelible. I can only say that I have never seen such a result. Possibly Dr. J. may have mistaken the dark spot, which is left by a portion of the iris becoming adherent to the ulcerated surface of the cornea, for the indelible stain of which he speaks.

The other local means which I have advised for the treatment of chronic or indolent ophthalmia are also to be used. If the ulcer be situated near the centre of the cornea, and seem likely to penetrate the anterior chamber, it will be proper, in addition, to apply the extract of belladonna to the eyebrows and lids, with a view of keeping the pupil dilated, and the free margin of the iris from falling into the perforation. If, on the contrary, the ulcer be situated at the margin of the cornea, then it will evidently be better to omit the application of the belladonna.

When a portion of the iris has passed through the aperture of the cornea, and forms a prolapsus of some size, it will be proper to touch the protruded part occasionally with the caustic pencil; or if it be very large, it may in some instances be necessary to snip it off with scissors, so as completely to remove what must otherwise be a source of irritation.

For the internal treatment you will do well to employ tonics, such as the sulphate of quina, and the more so if the patient be of strumous dia-

thesis. Attention to the state of the alimentary canal should likewise be paid.

[Mr. Walker has also made some most useful and practical remarks respecting opacity of the cornea, which we cannot help extracting: he says:]

The process by which an opaque deposit of any kind is removed from the texture of the cornea is that of absorption; and the only mode in which the surgeon can be of use, is in the employment of such remedies as have a tendency to increase the action of the vessels engaged in that process. After an attack of inflammation, I have before explained that the vessels become exceedingly relaxed and enfeebled; and it is astonishing, in some cases, how little effect is produced by the most powerful stimulating substances being brought into contact with them. In this condition we find that if there have been ulceration, the reparative process is slowly performed; and if there have been deposition, the absorbents are tardy in removing the superfluous matter. It becomes necessary, then, in all such cases, to apply an artificial stimulus which shall excite the dormant energies of the vessels.

The substances employed for the purpose of promoting the action of the absorbents are of the class termed stimulants; and the one most frequently used is the solution of the nitrate of silver. Its strength, in the first instance, should not exceed two grains of the salt to an ounce of distilled water. After a time, the proportion of the nitrate may be increased gradually up to ten grains to the ounce of water. This is decidedly the most popular of this class of remedies, and by some it appears to be regarded almost as a specific. In prescribing it, however, you must not forget the caution I formerly gave as to the long-continued use of the solution of nitrate of silver, viz., that it is very apt to leave a permanent stain of a deep olive colour in the conjunctiva, which, in the case of young persons, and more particularly females, would constitute a serious blemish.

The vinum opii was formerly a favourite remedy in the treatment of opacity, and indeed, in chronic ophthalmia generally, but of late it seems to have been almost superseded by the nitrate of silver solution. It would probably answer fully as well in the majority of cases.

A solution of the oxymuriate of mercury is, perhaps, as good an application as any other. One grain of the salt to an ounce of distilled water is sufficiently strong to commence with: after a time, two or three grains to the ounce will be borne, but its strength ought to be increased very gradually, as it is considerably more irritating than the nitrate of silver solution in like proportions. On the whole, it is decidedly preferable to the latter remedy, inasmuch as it never leaves any stain on the conjunctiva, however long its use may be continued.

Various stimulants are also employed in conjunction with some unctuous substance for the removal of opacities. Of these, probably, the red precipitate ointment, the citrine or golden ointment, the nitrate of silver ointment, and the ointment of hydriodate of potass, are the best; and they also should be brought into contact with the conjunctival surface of the inferior lid, in the manner before pointed out.

A very old-fashioned remedy, and by no means the least effective, is that of blowing through a reed or quill upon the surface of the eye, some finely powdered substance, such as the oxide of zinc, white sugar, red precipitate and sugar, powdered glass and sugar candy, and calomel and sugar. The operation of these substances is precisely similar to that of the drops and ointment—they produce a certain amount of irritation in the organ, which is presumed to increase the activity of the absorbent vessels.

London Lancet, July 4, 1840, p. 519—522.

42.—TREATMENT OF DISEASES OF THE TESTICLE BY COMPRESSION.

By Langston Parker, Esq., Birmingham.

A short time since, Fricke, of Hamburg, proposed the treatment of hernia humoralis, by compression; and subsequently, Ricord has modified Fricke's method, which is now generally followed with success in the Parisian Civil Venereal Hospital.

In common swelled testicle compression may be employed as soon as the patient is able to bear the application of the plasters; and this is generally much sooner than might be supposed, however acute the disease may be. The great advantages possessed by compression, are almost immediate relief to pain; which is occasioned in great measure, by the dragging and weight of the inflamed organ, and is mitigated, and most commonly completely removed by its support; the patient can pursue, in most instances, his ordinary duties, and there is no occasion to confine him to bed; a circumstance of great importance, where concealment is wished, as it always is, in diseases of this kind.

Chronic inflammation and enlargement of the testis also very commonly occurs as one of the symptoms of constitutional syphilis, as well as from other causes. Here, also compression, as a local remedy, is by far the most valuable of any with which I am acquainted, particularly in those cases where enlargement of the organ, from chronic inflammation, has taken place to a considerable extent, where the weight chiefly incommodes the patient, and little or no tenderness is experienced when the part is handled.

Compression of the testis is to be practised by surrounding the organ by straps of plaster, applied as closely and as tight as the patient can bear. The plasters I generally use are those of ammoniacum, with mercury, or iodine and belladonna. These are to be smoothly spread upon thick wash leather, and cut into thin straps; an assistant then grasps the testicle, and draws it as far downwards as he can in the scrotum, which should previously be washed with a little spirits of wine. The first strap should be placed at the upper part, circularly round the testis, and succeeded by others, placed in the same direction, till the whole is covered; A second series of straps is then to be placed in an opposite direction to the former, crossing them at right angles, from behind forwards. One or two long ones may then be placed over these where they appear to be most needed, to keep the whole in place. The parts should be supported by a well-fitting suspensory bandage, although the plasters at once relieve any inconvenience or pain that may have been occasioned by the dragging or weight of the testicle.

London Lancet, July 25th, 1840, *p.* 640.

43.—RESTORATION AFTER DROWNING, BY VOLTAIC ELECTRICITY ACTING ON THE DIAPHRAGM.

[Dr Ferguson, Surgeon to the Westmeath Dispensary, communicates the following account to the *Dublin Medical Press.*]

On Thursday evening, the 18th inst., I was requested to go in all haste to see a man of the name of James Rock, who had just been taken out of the canal, and was supposed to be dead. I was with him in four or five minutes, and found him apparently lifeless, cold, and livid. I had him forthwith removed to the county infirmary, about eight or nine hunded yards distant. I learned, in the meantime, from several persons who witnessed the scene, that he was at least six or seven minutes completely under the water, and that he had been in a state of intoxication. Finding the abdomen very much

distended I immediately introduced the stomach pump, and discharged by it upwards of a gallon of water, strongly impregnated with spirits. Seeing that this, with all the ordinary means of restoring suspended animation, had failed to produce the desired effect, and that no time was to be lost, I determined on trying a plan which I have for a long time considered a likely means of bringing about the action of the heart and lungs in those cases, by immediately acting on the diaphragm, the main agent of respiration, and accordingly was prepared with the necessary apparatus. I made an incision below the seventh rib—cut down on that important muscle—laid it bare, and applied the conductors of a galvanic battery, consisting of fifty pair of plates, to it. The effect was instantaneous, and surprised all the persons present. The muscles of the chest and abdomen became spasmodically engaged; and, after a few moments, I could see this spasmodic action gradually disappear, and the regular action of the chest come on, which soon increased till breathing became quite apparent, as also the circulation; and blood, now for the first time, issued from the wound I had made in the chest.

He has continued to go on well, with the exception of some inflammatory symptoms, perhaps produced by the wound, but not unlikely from the effects of the cold and wet he was exposed to; however, by the use of the lancet, and following up the antiphlogistic treatment, those symptoms are fast abating; and I have no doubt, I shall be able to discharge him cured, from the infirmary, very shortly.

This case must fully establish the utility of voltaic electricity in restoring suspended animation from immersion in water, by acting indirectly on the phrenic nerve and eighth pair, and thus exciting the action of the heart. It will also go to prove, in my opinion, that it is not necessary to transmit along the *channel of the nerves*, this most wonderful agent, as a substitute for nervous influence.

As immersion in cold water must hasten the extinction of life, arising from suffocation, by depriving the body of vital heat, the effect of this extraordinary power is the more remarkable, and shews the necessity of artificial heat being applied to the body as effectively and expeditiously as possible.

The stomach pump I consider was of much use, as by relieving the great distension of the stomach, the lungs were better able to fulfil their function, upon the galvanic influence being applied.

In cutting down and exposing the diaphragm, much caution is necessary, so as not to wound it, however slightly, the consequences of which might be very bad.

Dublin Medical Press, July 1, 1840, *p.* 8.

[The Gazette des Hopitaux Civilis et Militaries de Paris in noticing Dr. Ferguson's application of the galvanic pile for the resuscitation of persons apparently drowned, makes the following observations, which, seeing the great practical importance of the subject, we lay before our readers:—]

"M. Ferguson's caution to avoid wounding the diaphragm in the operation, which he recommends, is the more important as there are many recorded cases where wounds of the diaphragm, apparently little important, have led to fatal results, after a lapse of time varying from two months to two years after the infliction of the wound.—(Vide Morgagni, op. 53, No. 5-6. Liv. x. xii.) The wound remaining open, and allowing entrance to some abdominal viscus, which, gradually dilating it, at length made its way into the thoracic cavity, and produced a series of asthmatic symptoms sooner or later terminating in death. Unfortunately, however, it is more difficult than we might suppose, to avoid wounding the diaphragm in M. Ferguson's operation; and it is worth considering whether this operation is necessary or not. It seems very probable that one, two, or more long acupuncture needles, passed through

the diaphragm, would yield all the advantages without any of the dangers of the operation in question. The needles should be passed from above downwards, or from the thorax towards the abdomen, the wound inflicted is perfectly harmless, acupuncture needles simply separating the parts without dividing them.

M. Ferguson seems to have applied both conductors to the diaphragm; but we may have misunderstood him (unless, indeed, he speaks of several conducting wires in communication with one and the same pole of the galvanic pile). It would, we think, be better to apply one pole to the needles implanted in the diaphragm, the other being placed on the nucha.

We may add that if a powerful electro-magnetic apparatus were employed, contractions of the diaphragm might be excited by simply applying the poles to the skin; and such an apparatus, we think, should exist in every establishment for the resuscitation of persons labouring under asphyxia, its power being greater, and, above all, more constant and sustained than that of the ordinary galvanic pile."

Dublin Medical Press, September 23, 1840, *p.* 196.

44.—ON STRABISMUS, OR SQUINTING.

[So many opinions respecting the treatment of this affection have been published since our notice of this subject in our last number, that we find it difficult to arrange them. We have endeavoured to collect and abridge those which, in our opinion, are most deserving of notice, and we leave to the experienced reader the task of deciding which is the best. Mr. B. Lucas was, we believe, the first to introduce this operation into this country, and as the following is perhaps one of the best and simplest ways of operating, we will begin by describing it.

Mr. Lucas uses three instruments, a sharp hook for the conjunctiva, a blunt hook for the tendon of the muscle, and a pair of scissors.]

The sharp hook is for the purpose of seizing the tunica conjunctiva, and raising this membrane from the subjacent parts, in order to make the necessary incision of it. With the pair of sharp pointed scissors I make the incision of the conjunctiva, and also divide the tendon of the muscle, and the other parts which may require to be divided, on account of retaining the eye in the improper direction. The blunt hook is for the purpose of passing beneath the tendon of the muscle; and is admirably adapted to protect the globe of the eye, to fix it and the muscle at the time of making the section of the latter, and to secure the complete and perfect performance of the operation.

The principal assistant stands behind the patient, and should be sufficiently raised above him to have full command over his head and eyelids. The head of the patient should be allowed to rest against the lower part of the assistant's chest; and at the same time he is securing the eyelids, he is thus also enabled to steady the patient's head. By using the fingers in securing the eyelids a double object is attained. In the first place the natural softness and temperature of the fingers, when applied to the delicate tegumentary covering of the eyelids, never produce that degree of irritability in their orbicularis muscle, which contrivances of human invention in general do; and, in the second place, when these natural retractors are judiciously applied, they are always sufficient to keep the lids apart, to regulate the degree of separation required, and to allow them to close when it is desirable that they should do so, better than a speculum, a forceps, or any other such clumsy inventions for this purpose.

The fore-finger of the left hand should be employed in elevating the upper

lid, the integuments of which should be gently raised towards the supra-orbital ridge, and there steadily compressed against it. This should be performed three or four times before commencing the operation, as it accustomes the patient to it, and lessens the chance of his offering unintentional opposition by the contraction of the orbicularis muscle. The operater also before commencing the section of the conjunctiva, will find it advantageous to touch this membrane, where it covers the inner rectus muscle, three or four times with the handle of his hook, or point of his finger, with the same object.

The patient being thus prepared, and the eyelids held apart, the operator commences to make the required section of the conjunctiva.

Experience has shown me that this can be better and more quickly performed by means of the sharp-pointed hook, and the pair of scissors, than by any other instruments.

By having the hook fixed in a cedar handle, a great degree of lightness is given to the instrument, so that if the patient should start suddenly, or in any other way struggle, so as to interfere with the operation, the operator may let go the instrument, while it is yet fixed in the conjunctiva, without doing injury to this membrane, endangering the eye itself, or losing its hold. In three or four operations in which the patient struggled, I found the advantage of this precaution.

The operator takes the hook in his right hand, and inserts it into the tunica conjunctiva, about two lines or two lines and a half distant from the cornea, and on a line corresponding to its transverse axis. He then transfers the hook to his left hand: and, taking in his right hand the sharp-pointed scissors, he first gently draws forward the conjunctiva, and makes a semicircular incision of this membrane from below upwards, upon the outer side of the hook, to an extent varying from four to six lines. It may sometimes even be desirable to make the incision longer. If the patient feels faint at this time, or if he gets pale, the hæmorrhage from the incision of the conjunctiva will hardly amount to more than a drop of blood. In the majority of cases, the hæmorrhage will amount to some eight or ten drops, which will interfere, more or less, with the future steps of the operation. When this occurs, the operation had better be suspended for a moment or two, and the blood be removed, by means of a fine sponge and tepid water, when the bleeding will soon cease.

When the required section of the conjunctiva is made, the fine sharp-pointed hook should be withdrawn, the eyelids be permitted to meet, and the further progress of the operation be suspended for a few moments; during which time, if there be any hæmorrhage, the sponge and tepid water are to be used; indeed, whether there be hæmorrhage or not, the application of tepid water is always agreeable to the patient. The eyelids are next to be carefully wiped dry with a handkerchief, and the assistant is to secure them as before, when the lips of the incision of the conjunctiva will be found to be more or less separated from each other. The operator then takes the blunt hook in his right hand, and inserting it between the edges of the divided conjunctiva, he insinuates it from below upwards, between the tendon of the muscle and the sclerotica. This being effected, either totally or partially, the eyeball and the muscle are at the complete command of the operator.

It sometimes happens that upon exposing the incision of the conjunctiva, its edges will be found raised, in consequence of the blood insinuating itself into the cellular tissue; if this should offer any difficulty to the introduction of the blunt hook, the lids had better be again closed, and slight pressure be made upon them with the finger, over the incision, which will have the effect of displacing the effused fluid. It is very seldom, however, that this effusion takes place, unless the conjunctiva be needlessly pulled or torn.

The cellular tissue immediately behind the conjunctiva and the sub-con-

junctival and sub-muscular fasciæ, often afford resistance to the passage of the blunt hook. The former can be easily separated with the point of the instrument, and the fasciæ also, but with more difficulty.

The blunt hook being inserted beneath the muscle, the operater transfers it to the left hand, and having brought the tendon into view, he divides it with a sharp-pointed pair of scissors, held in his right hand, as close to its insertion as is compatible with the safety of the sclerotica.

The further proceedings of the operation are simple. If the eye be not immediately everted, or if the patient has the power of turning it so far inward as to conceal any portion of the cornea, or to hide completely the *white of the eye* between the cornea and the inner canthus, in all probability some of the tendinous fibres of the muscle have not been divided. To ascertain if this be the case, I have found the blunt hook the best instrument; it should again be inserted between the edges of the incision of the conjunctiva, and by directing its point upwards or downwards, keeping it at the same time close to the sclerotica, the most minute tendinous filament, if undivided, can be detected, and its section accomplished.

Notwithstanding that the muscle be divided in the most satisfactory manner, and even a portion of it cut away, the eye, in many cases, will be found still inverted. I have ascertained beyond all doubt, that this inversion is owing to the condition of the sub-muscular and sub-conjunctival fasciæ. When the inner rectus muscle is fairly divided, the mark of its semicircular insertion, with minute fuzzy tendinous fibres adhering to it, are as plainly discernible to the naked eye as the scissors with which the operation is performed; the inversion of the eye, therefore, cannot in such cases be owing to the inner rectus muscle: but if the sub-muscular and sub-conjunctival fasciæ be examined, they will be found strong and dense; and upon freely dividing them, both upwards and downwards, with a forceps and a pair of scissors, the eye in most cases, will become perfectly straight. I say in most cases, because it sometimes happens that these fasciæ are intimately adherent to the sclerotic coat, for its inner extent, and the operator will be obliged to dissect them from it, leaving the sclerotic coat completely bare. When this unnatural adhesion of the fasciæ was present, I have invariably remarked that the conjunctiva, upon making its section, was not connected to the parts beneath it in the very loose and delicate manner it is in the healthy condition of the eye, but that it was thicker than natural, and could not be raised freely with the sharp hook.

If the insertion of hooks into the sclerotic coat of the eye can be avoided, the better; it is impossible to regulate the depth to which such instruments may penetrate, if their curve be too great, and if the turn of the sharp points be only sufficient to penetrate the conjunctiva, and the parts beneath it, without entering the sclerotic coat, the instruments will be apt to slip during the most critical steps of the operation; or, to compel it to keep its hold, it must be pressed with force against the ball of the eye, bulging, as it were the globular sclerotic.

Besides, if the coats of the eye were of the same density and strength at all ages and in all individuals, a hook might be contrived to penetrate a certain distance, and no further; but as these textures are subject to much variety, the formation of such an instrument would require some ingenuity.

Provincial Medical and Surgical Journal, Oct. 3, 1840. p. 5.

[Dr. Franz has found it necessary in some cases to divide the tendon of the superior oblique, as well as that of the internal rectus, as he states in the case of Eliza White, in the *Medical Gazette* for July 24, 1840, p. 689.]

Mr. Liston also is reported to have frequently divided the inferior rectus,

either completely or partially, when he found the eye still retaining an obliquity inwards after the division of the internal rectus.

But this practice is very ably commented on by Mr. Duffin, whose experience in these cases has been very extensive. The celebrated Dieffenbach himself states, that "sometimes the trochlearis muscle was also shortened, so that it was necessary to divide it as well as the rectus." Mr. Duffin, in commenting on this practice, says:]

I do not by any means call in question that in some few instances it may be necessary to divide the inferior rectus, partially or completely, because I am satisfied that this muscle may occasionally be implicated in the production of the deformity, as well as the adductor. But when, after dividing, as I have thought, completely the rectus muscle, and the patient has still retained the power of directing the eye downwards, and *a little inwards*, I have always found, on instituting a very careful examination, that a few tendinous fibres, or a band of adventitious cellular attachment, generally situated above the tendon of the muscle, still remained unseparated; and on dividing these the patient could no longer direct the pupil to the nasal canthus, nor carry it beyond the centre of the orbit. It is truly astonishing how very small a portion of this fibrous adhesion remaining unseparated is sufficient to mar the finish of the operation. These fibrous bands or digitations are sometimes seated very far back, even beyond the greatest diameter of the eyeball.

In the dead eye the cellular tissue is so delicate, lax, and unresisting, as to be scarcely appreciable. Indeed, it is with difficulty we can imagine it capable in any way of contributing to the deformity. When endowed with life, however, the bands formed by it are very powerful agents in retaining the eye in its unnatural position, and offer considerable resistance to the scissors, on being cut. It would seem that these bands proceed from condensation of the cellular tissue connecting the muscle with the sclerotic coat, and which gradually adapts itself to the shortened state of that muscle. In some instances we find them strengthened by the effects of inflammation occuring during childhood; and in numerous examples it is the supervention of this apparently unnatural adhesion that renders the strabismus permanent.

In the first instance there can be little doubt that the affection depends on muscular spasm, by no means necessarily persistent. I think moreover, I have observed this adherent fibrous character of the sub-muscular cellular membrane to be more extensive and marked in persons who squint most. The movement of the eye downwards and inwards, then, when the patient makes an effort to direct it to the inner canthus after the complete division of the tendon of the adductor, arises, I apprehend, from the natural action of the inferior rectus muscle, whilst the eyeball is still partially bound down by the tendinous bands of attachment alluded to, and that all we have to do, ninety-nine times out of a hundred, in order to succeed in perfectly rectifying this diagonal and abnormal movement of the globe, is to carry the dissection sufficiently far to separate completely the adherent fibres, however far back, high up, or low down on the sclerotica, they may be seated. I have met with this feature in the course of the operation in very numerous instances, and have always overcome it by the means just stated.

In no case have I ever cut the fibres of the inferior rectus; and in none have I ever dreamed of cutting the superior oblique muscle as Dr. Franz informs us he has done, in order to remedy a position of the eye *upwards* and inwards, the reverse of that we have been considering. Dr. Franz, however, it appears to me, has deceived himself in this respect. Indeed, I do not believe that any one has yet divided either of the oblique muscles, or that such an extension of the operation will ever be necessary.

Medical Gazette, Sept. 11, 1840, *p.* 942.

[Mr. Charles Guthrie agrees with Mr. B. Lucas and Duffin, that it is only necessary to divide the tendon of the internal rectus muscle, or its cellular attachments, and that when the least portion of either the muscle or the condensed tissue attached to it are left undivided, it will frequently account for the failure of the operation. After describing his method of operating, which is nearly the same as that of Lucas, Duffin, &c., he says,]

The patient should now be desired to open the eye by raising the lid, and to turn the eye inwards; if he cannot do this, the operation has been completed, but if he can do it in the slightest degree, the muscle, or its lateral cellular or tendinous attachments have not been entirely divided, and the eye being again secured by the fore-finger or the elevator, the scissors are to be used, or the director is to be once more introduced, and the undivided part sought for and incised, when it will be found that the patient can no longer turn the eye inwards, and it is surprising how small a portion of attachment can do this, either on the under or upper part. In the earlier operations performed I was not aware of this circumstance, and in two cases where a slight turn *inwards* re-appeared a fortnight after the operation, I attributed it to this portion of membrane, which, in all probability, adhered to the posterior end of the divided muscle. It may also effect this slight turn from its connexion either with the rectus superior above, or the inferior below, as the case may be. In three of the last cases performed the eyes would not turn outwards, although the sclerotic coat was rendered distinct to all present, for nearly three-eighths of an inch every way, which indeed ought always to be done to insure success, and it was only by dividing the additional band of membrane or tendinous expansion I have alluded to, in one case above and in two below, that the operation was perfectly completed.

Medico-Chirurgical Review, Oct. 1840, *p.* 539.

[We must here call attention to an ingenious speculum used by Mr. Charles Clay, of Manchester, by means of which he is enabled to operate without the use of hooks.]

This speculum of Mr. Clay, in general form and size, represents a teaspoon, having about one third of the extremity of the bowl removed by a semilunar cut; on the external surface it is less convex than a spoon; and on the internal surface, that which is intended to be applied to the eye, it is concave, and hollow so as to fit the cornea and front of the globe, while the edges are thick to keep apart the eyelids. When placed in its position between the lids, the inner angle of the eye is left uncovered, in consequence of the semilunar notch, and the surgeon is supposed to operate in the resulting space.

London Lancet, Sept. 12, 1840, *p.* 908.

[Perhaps one of the least objectionable kind of hooks for steadying the eye during the operation for strabismus, is that recommended by Mr. James Adams. Instead of the usual hook which is thrust into the sclerotica at right angles, and which consequently often produces a good deal of pressure and pain, he has had made by Mr. Weiss, and proved by repeated trials, a hook of a very acute angle.]

It consists of a slender stem, an inch and a half long, fixed in a handle of the length of four inches. The stem is bent near the point at an acute angle, so that the returning part, which forms the hook, is one line in length, and its extremity at the distance of half a line from the stem.

The use of this instrument I would, then, suggest to the profession; and it will be seen that the hooked part of the stem is bent upon itself at such an angle as to require its introduction into the sclerotica, not by a sudden thrust,

at a right angle with its stem, but by a gentle motion in a line with the direction of the handle of the instrument, and so as to enter the sclerotic obliquely, thus rendering all direct pressure on the globe unnecessary, as the motion is to draw the eye outwards, and not to press it backwards.

The acuteness of the angle of the improved sharp hook, and the shortness of its reflected extremity, are a sufficient protection against its being thrust through the sclerotica.

Medical Gazette, Aug. 21, 1840, *p.* 840.

[In *Casper's Wochenschrift*, for July 4, 1840, are some recent observations of Dieffenbach, and although in his earlier cases we find that he refers to the steadying of the eye by means of hooking the sclerotica, yet in his more recent practice he seems to rely chiefly on hooking the conjunctiva alone, and does not even mention the sclerotica. In describing the operation, he says,]

The operator always stands on the right side of the patient whether he be operating on the right or on the left eye. The patient sits on a stool, and an assistant standing behind him draws up the upper eyelid with a Pellier's hook. A second assistant draws down the lower eyelid with a double hook, which is set in a handle, and of which the teeth are connected by a transverse piece. He kneels down before the patient so as not to be in the way.

The operator then puts a fine hook into the conjunctiva at the inner angle of the eye just where it is passing from the palpebræ to the bulb, passes it superficially through it, and gives it to a third assistant who stands on the left side of the patient. The operator next passes a second hook in the same way through the conjunctiva about a line and a half from the first. He and his assistant then both at the same time draw their hooks a little up, so as to raise a fold of the conjunctiva, and at the same time pull the bulb somewhat outwards. The fold is then divided with a pair of curved eye-scissors; and this cut usually at once exposes the tendon and the anterior part of the muscle. A couple of cuts with scissors then expose the outer surface of the muscle; a rather blunt hook is passed under its tendon, and the two sharp hooks that held the conjunctiva are now removed; the eye is held completely in the power of the blunt hook, and is to be drawn by it from out the internal angle of the orbit. A flat probe is then pushed under the muscle; and the loose connexion by cellular tissue between it and the eye is broken up. The division of the muscle is made by the scissors already mentioned, either, first, through the tendon in front of the hook; or, second, behind the hook at the beginning of the muscular substance; or, third, some lines deeper back.

The fixing of the globe can be accomplished only by fine hooks carried superficially through the conjunctiva; the seizing and elevation of the fold of conjunctiva by forceps sounds more gentle than to do it with a sharp hook, but it is in reality far more painful, more injurious, and more insecure; the fold raised up by the forceps easily tears or slips from their grasp, and if the forceps are made with hooks they wound as well as pinch the membrane. Two hooks must be employed to make the fold tense enough.

[Dieffenbach thinks that the further back the muscle is divided and separated from the sclerotica, the more effectually will severe cases of strabismus be relieved; and that slight cases only require the division of the anterior fibres. On this subject he says:]

If there be the slightest degree of convergent strabismus, only a very small opening should be made in the conjunctiva, and the tendon only divided close to the eye without separating the muscle from the globe. In this case the eye at first almost maintains its previous position, but after some weeks it becomes straight. If the conjunctiva be more extensively divided, and if the under surface of the muscle be separated from the globe with a probe

and then cut across, the squinting is at once nearly or completely removed. If the conjunctiva be divided over a greater arc and towards the back of the globe, if the cellular tissue be extensively separated and the muscle be detached far back and divided at its middle, then the eye, even in cases in which the whole cornea was before hidden in the internal angle, stands quite straight after the operation.

British and Foreign Medical Review, Oct. 1840, *p.* 570—572.

[The following simple method of operating is adopted by Mr. French, of the St. James' Infirmary, and communicated by Mr. Edwards, of Chelsea, who operated in the same way with success. In all the cases operated upon, says Mr. Edwards:]

The patient was seated on a chair in a moderate light; an assistant standing behind covered the sound eye with one hand, and with the other raised up the superior lid of the affected organ. The patient having been directed to turn the eye upwards and outwards, I snipped the conjunctiva at the under edge of the rectus, and passed a curved probe beneath the muscle: by depressing the handle of the probe the point was thrust forward, and appeared above the upper edge of the divided muscle, and by a cut of the scissors was enabled to emerge. The fibres were finally divided upon the probe.

The operation, thus abbreviated consists of but three steps:—

First. The snipping of the conjunctiva.

Second. The introduction of the probe under the muscle.

Third. The cutting out of the probe.

The usual formidable notes of preparation are avoided. The probe which I employ consists of two stems placed parallel, at a distance sufficient for the point of the scissors to pass between. It is curved into a hook in the shape of a semicircle, of which the diameter is six lines. The pattern may be had at Savigny's, or Ferguson's.

The probe, when introduced underneath the muscle, should be held loosely, for occasionally the eye is drawn spasmodically outwards, and the probe, if held tightly, would plunge, in consequence, deep into the orbit, and occasion pain by coming in contact with various nervous filaments; but when held loosely it follows the course of the eyeball, and produces no pain whatsoever.

Medical Gazette, Sept. 4, 1840, *p.* 927.

[M. Guerin performs the operation in accordance with the principles on which the method of sub-cutaneous operations rest.]

The patient is placed on his back, and the head fixed. The eyelids being held apart by an assistant, and the eyeball everted by means of a hook, a small convex bistoury is passed through the conjunctiva (at the inner or outer angle, according to the muscle to be divided,) and then directed between the globe of the eye and the rectus muscle. This done, the convex cutting edge of the blade is, by a semi-rotation, brought into contact with the inner surface of the muscle, and the latter is divided from within, outwards; that is to say, from the direction of the eyeball towards that of the osseous orbit. By drawing the eyeball a little forwards, and sideways, we render the muscle tense, and facilitate the operation. The division of the muscle is marked by a slight cracking noise, with a sensation of absence of resistance, and a slight movement of the eyeball, which yields to the hook employed to evert it. The bistoury is drawn out through the original opening, and there is, of course, no external wound, save this one, which is almost imperceptible. M. Guerin has twice repeated this operation, with complete success, on the internal rectus muscle. This muscle was divided in less than a minute; the conjunctiva was merely punctured, and a cure was speedily obtained, without the slightest trace of inflammation.

Provincial Medical and Surgical Journal, Nov. 14, 1840, *p.* 122.

[The following is an account of an instrument used by Mr. Charles Brooke, and it certainly seems to be the simplest, and perhaps one of the most efficacious yet used.]

The instrument resembles a small curved director attached to a handle, with a sharp-pointed, curved bistoury blade sliding in the groove. The blade and groove are accurately portions of a circular arc, comprising rather more than one-sixth of a circle, the diameter of which is one inch and a quarter. The groove gradually deepens from the point to the handle, so as to conceal the taper-pointed blade, when withdrawn a little; and is continued through the solid part of the handle, to give steadiness to the motion of the blade. I have used this instrument with complete success in more than a dozen cases, without the aid of any accessory instruments for fixing the eye or eyelids: my mode of operating being simply to make a small opening in the conjunctiva with a pair of probe-pointed scissors, through which the director is introduced and passed under the tendon to be divided; the blade being passed forward with the point of the fore-finger, completes the operation.

This instrument is made by Mr. Ferguson.

London Lancet, Nov. 14, 1840, *p.* 280.

[We cannot do better than end this article on strabismus, by giving the theory of the operation in the words of Mr. Hocken.]

When we divide the hypertrophied muscle, its weaker antagonist is, for the time, the only acting power: hence it has been surmised that the eye ought to assume an opposite displacement to the habitual squint; but experience disproves this, at least for any length of time, for its contraction serves only to restore the organ to its normal direction, in harmony with its fellow. During the healing of the divided tendon, the muscle originally weak gains strength and volume by its increased exertions, whilst the hypertrophied muscle loses both, never again to recover them in the prior degree, and at the same time, the muscle previously contracted becomes elongated, since it is united whilst the eye is retained in its healthy direction by its antagonist. Hence the principle is the same as in the cure of the varieties of talipes, &c.: here the division of contracted tendons allows of the placing of the abnormally situated parts in a right direction and healthy situation, aided, and the situation maintained by suitable mechanical measures, so that reunion of the divided parts takes place whilst they are thus situated, and permanent elongation is insured, at the same time that muscles, previously atrophied from disuse, are again, from the change of position, called into active service, and in this way the parts are restored to their due balance of strength and appearance, provided that the osseous system admit of such subsequent changes. In two cases operated upon by Mr. B. Lucas, he had an opportunity of ascertaining what became of the muscle after its division. "After having made," he says, "the incision of the conjunctiva in the usual manner, I clearly saw the mark of the original attachment of the muscle in both cases, and a short distance behind this point (from a line and a half to two lines) I found the muscle adherent to the sclerotica."

Medical Gazette, Sept. 11, 1840, *p.* 946.

45.—TREATMENT OF CATARACT IN INFANTS AND YOUNG PERSONS.

By R. Middlemore, Esq., Surgeon to the Birmingham Eye Infirmary.

[As Mr. Middlemore differs in his views on this subject from all other writers with whom we are acquainted, we lay them before our readers with pleasure; especially as his well known character makes any of his opinions on this particular subject attended to with respect by the pro

fession. He states that his views on this subject are original, or at any rate not noticed and acted upon in the same way. The only individual who even alludes to the subject in the same way as himself is Mr. Barton, of Manchester, in an interesting communication to the Medical Gazette, vol. 5, p. 784. Mr. Barton's cases, however, do not seem to apply to very young children, as the one is the case of "a country gentleman," and the other that of a "mechanic," and moreover, the only operation recommended by him is that of extraction, which, as Mr. Middlemore justly affirms, is of extreme difficulty in children two or three years old: and moreover, the originality of Mr. Middlemore's views seems to consist in the fact, that the operation he describes is only called for in *early life* in order to prevent a still more troublesome disease, viz., *capsular* cataract, which is almost sure to follow the first form of disease. Mr. M. proceeds to say:

If ordinary congenital cataract be allowed to continue until the subject of this defect has arrived at, or towards adult age, certain important changes take place; for instance, the lens is absorbed, the anterior and posterior hemispheres of the capsule become thick and opaque, and either fall into apposition, or become united by an organized medium.

Concussion of the eye or head, wound of the lens and its capsule, and a variety of other accidents, may occasion cataract, and if such an event take place in early life from any of these circumstances, and no attempt be made to relieve it, thick, tough, capsular cataract is likely to remain, and is especially prone to contract adhesions to the iris, and to diminish the pupillary aperture.

It will be perceived from this statement, that if in early life the lens and its capsule become opaque from any cause, and no prompt surgical efforts be employed to procure the disappearance of the opaque matter, a secondary, and far more troublesome, and less manageable form of disease will almost certainly occur. Hence, it may be laid down as a rule of practice, admitting of scarcely any exception, that operative proceedings should be employed soon after the distinct establishment of the cataractous malady, *whenever* it occurs *in early life*. I say *in early life*, because when the same malady occurs at an after period, the same reasons for removing it by operation do not exist. For instance. 1. If then (at a late period of life), the disease continue for very many years, it is not by any means so liable to be converted into a more unmanageable description of malady, so that a time of choice is as it were, allowed us; on this account it would be manifestly improper to select, for the purpose of performing an operation, the period of inflammation, just when the eye is very unfavourably situated for such a proceeding. 2. The eye is perfectly developed, and its growth cannot, therefore, be arrested, as it may be if an operation be too long delayed, as in the case of congenital cataract. 3. The sensibility of the retina *has been* perfect, and *has been* exercised, so that atony of that important part is not likely to take place from the oftentimes temporary, and always partial, discontinuance of its natural stimulus, as occurs in the instance of cataract (traumatic or otherwise,) affecting only one eye, in elderly persons. 4. The question of personal appearance is comparatively of little importance, &c.

Cataract occurring in young persons is now generally treated by the anterior or posterior operation of solution. In performing either of these operations, we are very properly directed to destroy the anterior capsule to an extent at least equal to the size of the natural pupil; but I am convinced this important direction is by no means sufficiently attended to. In the operation of keratonyxis, owing to the difficulty of moving the needle about in a texture like that of the cornea, without causing the escape of the aqueous humour, the capsule is sometimes merely divided: a portion of the cataract

escapes into the chambers of the eye, and perhaps a small quantity of the soft flocculent lens is interposed between the lips of the incision in the capsule. So also in the posterior operation of solution, the needle, having passed through the lens towards its margin, is indeed, pushed through the anterior capsule, if that membrane be healthy, but if unusually thick and tough, it may be *raised upon* and *pushed before* its point; but in depressing its point with a view of lacerating the capsule, it will very often, I fear, pass nearly through the same aperture at which it entered, into the substance of the lens, where it may be moved about with much apparent, but little really useful effect. Now, in such cases, what is the result of these proceedings? The wound of the capsule heals very readily, if no portion of the lens be interposed between its edges, and there is scarcely any vestige of the puncture; but if any portion of the lens protrude through the opening, it is gradually absorbed, and there remains an opacity of the capsule of a greater or less extent. The capsule being not at all, or only very slightly, opaque, proceeds to the absorption of the lens, which it generally accomplishes; it then becomes opaque; its two layers meet, or they become united, and constitute a thick, tough, opaque texture, which is in fact worse than the original disease. Sometimes, when the posterior operation of solution has been performed the injury to the capsule may have been more extensive than I have now stated, but still, not sufficiently great to permit the discharge of the whole of its contents, nor to destroy its opacity until it has completely absorbed the lens, when having become, as it oftentimes will do, inflamed, it generally secretes a lymphatic matter, by means of which the capsules, the iris, and an intervening mass of lymph are united, and remain as a future obstacle to vision. Hence, then, arises the necessity—and the fact cannot be too frequently presented to the notice of junior practitioners—of making a free laceration, and extensive comminution of the anterior hemisphere of the capsule, at a *first operation*, namely, to prevent the occurrence of that form of disease in which the two layers of the capsule meet or become united, form adhesions to the iris, and constitute an obstacle to vision which nothing short of extraction can entirely remove. The importance of preventing the *secondary* disease, by a due attention to the treatment necessary for the perfect cure of the *primary* affection, is manifestly very great.

[Mr. Middlemore then goes on to say:]

I now proceed to explain the operative proceedings it is the main object of this communication to recommend; and it will be understood they are adapted to those cases of traumatic, or other forms of cataract, occurring in infants or young persons. For if traumatic cataract not attended with displacement of the lens, occur after the latter age, the necessity for an operation is much less than at an earlier period, chiefly because the lens is less prone to become absorbed, and the capsule to undergo those changes which so generally occur in younger subjects. And here I beg to state that, on one or two important points, I entirely differ from preceding writers. First, in pointing out that, when the lens is rendered opaque in infants and very young persons by the application of accidental violence, it is *absolutely necessary* to cause its removal by a surgical operation, unless, indeed, it be at the same time displaced, or associated with other injury necessarily destructive to vision; and secondly, in stating that when this accident occurs in early life, its cure should be attempted, not by the operation of extraction, which, for aught I know to the contrary, some persons may be injudicious enough to perform, but by that of solution.

Operation.—If a child have sustained an injury of this description—the cornea not being much injured; the inflammation produced by the accident not being severe; the lens opaque, but not displaced; I prepare the eye for operation, by applying belladonna to the eyelids, and bind up the healthy

organ. Having steadied the eye by means of the fingers of an assistant, (I scarcely ever use the speculum) if operating upon the left eye, and by the agency of my own, if operating upon the right eye, I introduce the needle through the sclerotica, as for the posterior operation of solution, and, by continued and varying movements, lacerate the capsule as freely as possible, to an extent equal, at least, to the size of the pupil in its ordinary state of dilatation. Having done this, bearing in mind that the needle is slightly curved, I very gently withdraw it, keep the patient in a darkened apartment, and employ any antiphlogistic or other measures the after course of the case may render necessary. The daily application of belladonna is requisite, with a view of facilitating and rendering more perfect the solution and absorption of the comminuted lens and its capsule.

Let it be remembered that, as the object of this operation is to prevent the establishment of a secondary form of disease (tough capsular cataract,) which usually occupies in its developement several months, it is not imperative to perform it so soon as the opacity of the lens appears; neither is it advisable to do so until all acute inflammation has been subdued; in this respect differing from some cases of dislocation of the lens, which may demand the prompt performance of a surgical operation.

Sometimes it is necessary to perform a second operation, but this seldom happens if the first operation is practised with the necessary care, except in those cases where the lens has become opaque independently of any local injury, which has caused the laceration of the capsule. So that a first and single operation for conjunctival cataract affecting the whole lenticular substance, would not be so likely to be perfectly effective as would the same operation performed upon the eye of an infant suffering from traumatic cataract. In fact, in the case of conjunctival cataract, a single operation will not by any means, always effect the entire removal of the disease, however carefully and perfectly performed.

I shall conclude with the following condensed summary of the more material statements contained in the preceding remarks:

1. *Proposed Operation.*—Posterior operation of solution with very free laceration of the capsule.

2. *State of Disease or Injury to which the Proposed Operation is Adapted.*—Any injury of the eye, occurring in infants, or persons not more than thirty years old, and producing opacity of the lens *in situ*, but not occasioning any extensive wound or injury of the cornea, or other part of the globe, necessarily destructive to vision. Should the soft lens, uncovered by its capsule, (which has been extensively torn by the accident,) be thrown from its natural situation, either into the pupil or anterior chamber, the operation is not required; first, because the suposed free laceration of the capsule protects the patient from the occurrence of capsular cataract; and secondly, because the youthfulness of the patient, and the softness of the lens, render almost certain the disappearance of the cataract without the performance of a surgical operation.

3. *Time at which an Operation should be Performed.*—As soon as acute inflammation has subsided, and any inflammation the globe, or any injury the cornea has sustained, has been either much moderated or altogether subdued. Just as, in other instances, when about to perform a surgical operation, we get the parts, upon which we propose to operate, in as quiet and tranquil a condition as possible beforehand, so here we act on the same principle, and, by freeing the eye from inflammation, place it in the most favourable state we can to sustain the irritation occasioned by the operation we propose to perform. The operation is not suggested with a view of relieving pain or inflammation, or with the intention of preserving the vision of the opposite eye; for it is presumed that a somewhat slight wound of the cornea, and opacity, without displacement of the lens, will neither produce serious inflammation

or severe pain of the affected eye, nor endanger the vision of its fellow. It is performed with a view of restoring the sight of the injured eye, and of preventing the establishment of that form of capsular cataract which, as I have previously explained, is always difficult of management.

Medical Gazette, July 31, 1840, *p.* 721–725.

[Professor Jungken takes the same view with respect to the necessity of freely dividing the capsule of the lens, as may be seen by referring to a paper by Dr. Franz, in the *Medical Gazette*. Referring to Mr. Middlemore's opinion of the necessity "of making a free laceration, and extensive comminution of the anterior hemisphere of the capsule at a first operation," Dr. Franz proceeds to say :]

The best method of following this indication, and attaining the end desired, is in my opinion, a modification in the operation for solution, which I have seen adopted with great success by Professor Jungken, and which I have not met with in any of the numerous writings on ophthalmic surgery in the English language, and therefore think worthy of submitting to the profession. After passing the needle either through the cornea or sclerotica, Professor Jungken divides the anterior wall of the capsule in its whole diameter, in four different directions, through its centre. By these means eight flaps are formed, which soon retract behind the iris, and thus leave the pupil perfectly clear. The lens is now divided in different directions, more or less according to its consistence. A few smaller pieces of the lens are brought into the anterior chamber, and the nucleus, or one or two larger pieces, are pressed backwards into the vitreous body through the centre of the posterior hemisphere of the capsule, which is partly destroyed. The needle is now withdrawn from the eye. This method insures the entire removal of lens and capsule from the pupil, and as the smaller pieces of the lens in the chambers of the eye are soon absorbed, a cure is more readily accomplished.

I have again modified this operation, and perhaps improved upon it; for as in pressing the nucleus of the lens into the vitreous body through the centre of the posterior capsule this latter is not entirely destroyed, and the ramifications of the arteria centralis in the posterior capsule are greatly injured, which lesion might have for its consequence an opacity in the centre of the capsule, I prefer pressing the nucleus not through the centre of the capsule, but through a point somewhat nearer to its periphery. On this principle I have already operated, and in lacerating the capsule out of the axis of vision, and in offering less injury to the small branches of the artery, all possibility is removed of an opacity following, which might interfere with sight.

Medical Gazette, Aug. 14, 1840, *p.* 798.

46.—ON THE EXCISION OF DISEASED JOINTS.

By Bransby Cooper, Esq., F.R.S., &c., &c.

[The removal of diseased articulating surfaces may certainly be ranked amongst the greatest triumphs of modern surgery. Instead of leaving the disease to wear out the constitution of the patient, or amputating the limb and thereby crippling him for life, the joint is boldly laid open, the diseased portions excised, and the wound allowed to heal by granulation : taking care to place the limb in the most suitable position for its after use, after anchylosis had taken place.

Mr. Cooper gives us an excellent lecture on this subject in the *Provincial Medical and Surgical Journal*, from which we extract the following case :]

There was considerable hard tumefaction about the joint itself, extending upwards nearly to the middle of the humerus, and downwards over about a third of the radius and ulna. A livid inflammatory blush extended over the surface of the swelling. The two sinuses I have mentioned communicated with the joint, the structures of which seemed completely disorganized; motion causing the grating sensation peculiar to denuded bone. Flexion of the fore-arm upon the arm, and the motions of the wrist joint and fingers were very imperfectly performed. When the joint was at rest he was free from pain. Bowels regular. But he was losing flesh, and complained of general debility.

[The operation is described as follows:]

The patient was laid on his abdomen, and the diseased arm was flexed over the back of a chair, an excellent support being thus given to the joint, while it afforded me a perfect view and control over it. I then made an incision from above downwards, about three inches in length, over the external condyle, and followed it by a corresponding parallel incision immediately to the inner edge of the olecranon process, connecting the two by a third and transverse cut. Having dissected back the flaps thus formed, and separated the tendon of the triceps from its insertion, I removed about an inch of the olecranon process by a common saw, an assistant at the same time carefully retracting the ulnar nerve. The joint was now fully exposed to view, and I removed the diseased portions of the humerus and ulna, chiefly by means of a scalpel. The head of the radius was almost free from disease. The patient did not appear to suffer extraordinary pain. The hæmorrhage was slight and chiefly venous, no artery being divided of sufficient size to require the ligature. After a short time the flaps were brought together, connected by sutures and adhesive plaster, and the patient dismissed to bed. The arm was laid on a pillow, the ulna being so placed as to form a right angle with the humerus. Warm water dressing applied.

I shall not trouble you with the daily reports of the case; but on the evening after the operation he complained of pain about the joint, but this was altogether relieved by the removal of the sutures. The febrile symptoms which arose were moderated by saline aperients. His health has been improving; he sleeps well; he suffers very little pain; and a healthy discharge proceeds from the wound, which is rapidly filling up by granulation.

Now, as to the *rationale* of the operation, I cannot help believing that those who have recommended the excison of joints, have dwelt too strenuously upon its advantages, as to the quantity of diseased structures which, by mechanical means, they remove. In my opinion, the great benefit which is derived is from exposing and perfectly laying open all the affected tissues, so that nature is not herself obliged to produce sinuses and ulcerations through the soft parts. It is not the quantity of bone you cut away, but, by exposing a large surface, you allow the diseased tissues to readily come away, instead of burrowing through the soft parts. No more should be removed than is evidently already destroyed by disease, and we find that this is generally confined to the articulating surfaces alone of the bones implicated. If you remove beyond this, you do no good, but, on the contrary, detach muscles which would otherwise have been of the greatest service to the new joint, and thereby render it far less capable of natural and useful motion; while, if you operate as I advise, or if the process be left to nature, those parts are alone thrown off, or removed, which can be dispensed with, compatible with the preservation of a useful limb.

Provincial Medical and Surgical Journal, Nov. 7, 1840, p. 96.

47.—TREATMENT OF VARICOSE VEINS.

By M. Bonnet, Chief Surgeon to the Hotel Dieu, Lyons.

[In our first number will be found a very interesting article on this subject by Mr. Dodd, and as reference is there made to M. Bonnet, we think it right to give his views; more especially as he differs in opinion as to the efficacy of needles and ligature, as employed by both Mr. Dodd and Mr. Phillips.]

Having lost confidence in the use of pins, twelve patients were then operated upon with potass alone, and this series of observations confirmed M. Bonnet more and more that the treatment of varices by this alkali was the only one of all the means he had employed which afforded a simple, certain, and durable cure.

The rules for the application of the potass are as follow:

1st. Many portions of caustic must be applied on the course of the dilated vein at intervals of two or three inches.

2nd. The application should not be made except in those parts of the veins which correspond to the muscles. The only place where it should be applied are on the superior half of the leg, and inferior half of the thigh.

3rd. The caustic must be applied at least twice at the same point, in order to reach the vein. This supposes that it is necessary, in order to obliterate the veins, to reach and open them with the caustic. In no case after the first application, which only destroys the skin and a little cellular tissue, has the flow of blood been found to have ceased in the veins, and they never are found converted into a hard cord impermeable to the blood. It is only after being opened that these changes occur. Mr. Bonnet leaves it a matter of discussion whether it would be preferable to open the veins by a single application of a sufficiently large piece of potassa fusa, or by the applying a second portion in the centre of the eschar formed by the first.

The danger arising from phlebitis naturally presents itself as likely, both by theory and analogy, to arise from this operation; facts, however, speak differently, since of twenty patients, fourteen of whom were treated with the potass alone, and six by the combination of potass and pins, M. Bonnet has not even once seen a tendency in the inflammation to propagate itself along the course of the veins, although three or four applications of potass had been made on different parts of their course, and in the greater number had opened their cavity; the inflammation was, therefore, in all these cases limited by the bonds of adhesion, and perfectly circumscribed.

These results prove that cauterizing of the veins with caustic potass does not expose the patient to the danger of phlebitis; "and," says M. Bonnet, "finding every day proofs of the innocence of this remedy, I now take no other precaution than that of confining my patients to bed." They are permitted to follow their accustomed regimen, to have the half or three-quarter portion, (equal to the middle diet of our hospitals.) The dresser of the ward applies the caustic on their veins as if inserting a common issue, so that they never suspect that an operation is performing. Finally, the inflammation developed around each eschar, and the ulceration which succeeds its separation, are similar in every way to those circumscribed inflammations and ulcerations which occur when issues are established in the thigh or leg, only that the inflammation is more acute, and the ulceration deeper, on account of two portions of caustic being applied in the former case. M. Bonnet allows, however that where two cauterizations have been performed too close to one another the areola of inflammation which surrounds them may unite and cause a genuine phlegmon.

Dublin Journal of Medical Science, Sept., 1840, p. 108.

[M. Jobert seems to agree with M. Bonnet, and as the English cases were not watched for any considerable time after the operations, we are bound to pay attention to his opinion.]

He relates six cases, and states that he could describe twelve others, in all of which the treatment of varicose veins by producing the obliteration of their trunks by needles and twisted sutures, or other means, though at first it seemed promising, had ultimately proved completely unsuccessful. In all the patients who were thus treated the varicose ulcers returned a short time after they left the hospital as it was believed perfectly cured; and the return took place in these cases more rapidly than in all probability it would if only the ordinary treatment by rest, poultices, and bandages had been pursued.

British and Foreign Medical Review, Oct., 1840, *p.* 577.

[The practice of M. Laugier, as recommended by Mr. Clay, of Manchester, differs in some respect from the preceding. He lays the vein bare before applying the caustic, and then applies it on the vessel itself, protecting the surrounding skin with lint. Mr. Clay gives the following case as an example of this mode of treatment:]

Betty Whitehead, ætat 27, applied at the dispensary for relief; she was unable to follow any employment, in consequence of large varicose veins occupying the whole of the inner surface of the left leg from the knee to the foot; the circumference of the affected leg was nearly double the other. Liniments and bandages were of little use, and as the leg daily became worse, she submitted to the operation on the 25th July.

Assisted by my colleague, Dr. N. Strange, I laid the vein bare in two places, about six inches apart, each opening of the integuments being a little short of an inch and the vein being exposed to the extent of half an inch. Great care was required in the first incisions lest the vein, which is generally very superficial, should be injured. A piece of lint, one inch and a half broad and four inches long, in which a cut of half an inch was made with a knife was then prepared; and after waiting a few minutes for the bleeding to subside (which is very trifling, but yet sufficient to prevent the due operation of the caustic paste,) I placed the lint crossway over the wound, so that the exposed vessel and the fissure in the lint approximated to each other. A piece of stiff Vienna paste was then formed in the shape of a wedge, of about half an inch square, the pointed edge of which was pressed through the cut in the lint down upon the diseased vessel steadily and rather forcibly, and the loose ends of the lint were turned over the back of the wedge with a strap of adhesive plaster to bind down the whole. The same plan being employed to both incisions, she was instructed to keep the leg quiet. The principal pain was over in half an hour, and that was of but little moment.

In three days a large slough was formed, and at this time the leg was reduced to its natural size, the varicose appearance had vanished, and an ulcerous sore on the internal malleolus was healing rapidly, which had before resisted every application. Mild poultices were applied to the sloughs, which fell out in about fourteen days. The sores are now nearly healed, and the woman has resumed her employment.

This case differs from the plan pursued by M. Laugier, inasmuch as the bleeding from the first incisions was of so trifling a nature, that no nitrate of silver was used to check it; and this, which is spoken of by Laugier as being the most painful part of the operation, is done away with by waiting a very few minutes. Again, by making the Vienna paste very stiff, it is easily formed into a wedge; and, by pressing it in that state through the lint, it adapts itself nicely to the diseased vessel, while the lint covers the lips of the wound, and the wrapping of the ends over the wedge leaves no caustic to clear away. The paste I use consists of equal parts of dry powdered lime

and the caustic potass, with only just sufficient moisture to make them int a stiff paste."

London Lancet, Aug. 29, 1840, *p.* 816.

[In a clinical lecture delivered by Mr. T. P. Teale, at the Leeds General Infirmary, the following interesting remarks are made, and we believe a novel mode of treatment described, respecting varicose veins.]

The extent to which the vein is obliterated or contracted below the eschar is seldom great, the good effects of the operation being generally not experienced beyond three or four inches below the eschar, or not beyond the point where considerable anastomotic branches exist. From ignorance of this fact in some of our earlier cases, the success was not complete, the caustic having been applied too high upon the trunk of the saphæna, under the idea that all the branches below would be obliterated by deposites of fibrine. Subsequently, the success of the treatment was greater, from the caustic having been applied upon varicose branches not more than two or three inches above the ulcer, care being taken that no larger anastomotic branch intervenes between the eschar and the ulcer.

This plan of treatment, however, has not been altogether unattended with inconveniences. In three of the earlier cases, hæmorrhage occurred, from the patients being allowed to resume the erect posture, and to take exercise soon after the separation of the eschar. This accident has, however, since been effectually prevented, by insisting upon the recumbent posture being preserved until the sore produced by the caustic has advanced considerably in the process of granulation. Another, and often a most serious inconvenience attending this plan of treatment, is the indolent character of the artificial sore, which sometimes does not heal until several weeks after the original ulcer is cicatrized.

So serious is this objection to the general employment of caustic in the treatment of varicose veins, that it has become desirable to attempt some other mode of treatment which may prove equally efficient, but less objectionable. With this object in view, I have lately in several cases adopted a plan of treatment, on the suggestion of my brother, who had successfully employed it in a case under his care. This treatment consists in the employment of pressure through the medium of what has been termed the "immoveable fracture apparatus."

You must not conclude that this or any other plan of treatment will in all cases be a certain protection against relapse. The recurring operation of the causes of varicosity will undoubtedly be sufficient to reproduce the disease. Any mechanical interuption to the free return of blood, as pregnancy, or even the long-continued operation of gravitation in those whose occupations require the long maintenance of the erect posture, will be capable of inducing a relapse.

All cases should be rejected in which there exists a *permanent* mechanical obstruction of the veins, as tumour in the groin, pelvis, or abdomen, enlargement of the liver, disease of heart; and more especially should those cases be rejected in which there exists obstruction of the large veins of the thigh or pelvis from deposites of fibrine in their interior. Such deposites are not an unfrequent result of previous inflammation of these veins, occurring in the puerperal state, and producing the indolent tumefaction of the limb termed phlegmasia dolens. Pelvic and crural phlebitis, however, is far from being limited to the puerperal state; it is also frequently produced by imprudent exposure to cold during the catamenial period; and even in the male subject it sometimes occurs, and a similar obstruction of the veins is the result. In these cases the enlargement or varicosity of the superficial veins of the leg and thigh ought to be regarded as an effort of nature to compensate for the obstruction, by establishing a collateral venous circulation; and in

attempting to reduce the size of these veins, we should only be counteracting her salutary efforts.

[These remaks are illustrated by the following case.]

John Grant, aged 45, of spare habit, but of general good health, was admitted into the Leeds Infirmary, Sep. 8th, 1840, under the care of Mr. Teale on account of ulcers of the leg.

After he had been purged freely and confined to bed for two days, lint was applied over the sores, and the entire leg from the toes to the knee was enveloped in the "immoveable fracture apparatus," consisting of calico stiffened with mucilage and chalk. The material employed for this purpose is similar to that which was stated to be in use at St. Bartholomew's Hospital, and consists of a kind of pasteboard, formed by two layers of thick calico cemented together by an interposed stratum of mucilage and chalk. Two portions of this pasteboard, adapted to the form of the leg, and softened by immersion in tepid water, are applied to the leg, and retained by a spiral calico bandage, over which is spread a layer of mucilage and chalk, and afterwards a second spiral bandage.

After the apparatus had been applied eight days, a slight degree of putrid odour was perceptible, and there was some appearance of matter oozing through the bandages at the situation of the ulcers: the apparatus was therefore removed, when the ulcers were found to be much diminished in size, the varicose veins no longer perceptible, and their thickened parietes could not be felt beneath the skin. The sores were dressed with lint, wax ointment, and a light bandage.

Oct. 9th. Ulcers healed. No return of varicosity.

Provincial Medical and Sur. Journal, Nov. 21, 1840, *p.* 132.

48.—APPARATUS FOR PROMOTING RESPIRATION IN CASES OF SUSPENDED ANIMATION.

By Dr. DALZIEL, of Drumlanrig. Communicated by Dr. LEWINS, of Leith.

In the case of a seaman lately brought to the Humane Society's rooms here, I found Dr. Dalziel's appparatus to answer the purpose completely, so far as respiration was concerned. The dead body was made to breath in such a manner as to lead the bystanders to suppose that the unfortunate individual was restored to life.

In consequence of the patient's body being enclosed in the interior of the apparatus, the elevation and depression of the chest were not perceptible, but the effects of the air entering into and returning from the lungs were very visible on the cheeks, the lips, and also of the nose. A lighted candle was extinguished by being held under one nostril, and again lighted by being placed opposite to the other.

I shall prepare a statement of the case referred to, and with Dr. Dalziel's leave, have a drawing made of the apparatus, which, with such remarks as the subject suggests, I shall transmit for insertion in the next number of your journal.

The principle on which Dr. Dalziel's apparatus acts is, that the body, with the exception of the head, be in vacuo, or nearly so. This is easily done by putting the body to be operated upon, in a box that can be made air-tight. On the top, a large syringe is placed which communicates with the interior.

By elevating the piston of the syringe, a partial void is created, to fill up which, the air of the atmosphere rushes into the lungs through the trachea, and distends the chest. Expiration is accomplished by depressing the piston.

Edinburgh Medical and Surgical Journal, July, 1840, *p.* 265.

49.—ON TORSION OF THE ARTERIES.

Dr. Remak recommends a modification of the operation of torsion of the arteries, which consists in seizing the vessel transversely with a pair of sharp wedge-shaped forceps, and then pressing forcibly, so as to divide the internal coat. The extremity of the artery is then seized with another pair of forceps and twisted, while the torsion is prevented from extending up the artery by the first pair. The vessel is thus less injured than in the common proceeding, and the internal coat, which shrinks after being divided, offers an effectual barrier to the blood. The operation was tested experimentally upon a horse; the carotid was divided, and torsion, performed as recommended above was sufficient to restrain the hæmorrhage, even when the horse was made to trot briskly.

British and Foreign Medical Review; and American Journal of Medical Science, Feb. 1840, *p.* 473.

50.—IODINE AS APPLIED TO REDUCE ENLARGEMENT OF THE THIRD LOBE OF THE PROSTATE GLAND.

By R. A. Stafford, Esq., Surgeon to the St. Marylebone Infirmary.

The methods I have employed for the treatment of an enlargement of the third lobe of the prostate gland are, the application of certain substances upon it; puncturing the part with a particular instrument I have invented, and perforating it with the urethral perforator, according, in all cases, to the extent of its increase of size. If the third lobe has only partially enlarged, I have then employed remedies, such as iodine, the iodide of potassium, belladonna, &c., locally, always in a diluted form, and combined or uncombined with other substances as the urgency of the case might require. If it be so large that it will not yield to the application of these substances, I have in some instances punctured it with advantage, and when its volume has been so great as to block up the neck of the bladder and cause retention of urine, I have then been under the necessity of perforating it.

After remarking that it was the effect of iodine over glanular swellings which led him to think of its employment in enlargement of the prostate, he proceeds:

"I felt it easy to make it to be absorbed through the substance of the prostate gland, by using it in suppositories passed up the rectum, but the difficulty was to apply it on the third lobe without touching any other part of the urethra. I made several attempts to accomplish this; first, through a tube, then in a groove at the end of a solid instrument, then by the method by which caustic is applied to a stricture, according to Ducamp's plan, and others; but none of these answered. I at length thought of a very simple mode of applying it, which is by charging a bougie at its point with the *iodine*, *iodide of potassium*, or any other substance you may wish, and then dipping it into melted tallow so that a coating may be formed upon it. By such method I have been enabled to introduce any application I might desire up to the prostate gland, without touching the surface of any other part of the urethra. The bougie having reached the desired spot, its point is allowed to rest upon the diseased part, when the tallow gradually melts and brings the iodine or iodide of potassium into contact with it, and by drawing the bougie gently backwards and forwards the necessary friction is produced. I have found it advisable to be very cautious as to the strength of the application, for the prostate gland will not bear a strong preparation either of the iodine or iodide of potassium at first. It is usually in an irritable or inflamed state: consequently even the mechanical pressure of the bougie will give pain

The preparations I have used, therefore, have been very mild. At first I have found it necessary to employ even anodynes, such as belladonna, opium, hyoscyamus, &c., to quiet irritation and pain. When these have subsided, I have begun carefully by introducing the iodide of potassium in the proportion of *one grain to the drachm of unguentum cetacei*, and increasing it as the patient could bear it. I have then gone on with two, three, four, five, and even as far as ten grains, or a scruple to the drachm, according as the case required it. After this I have added iodine to it; half a grain, one, two, three, four, or even more grains in the same manner. The surgeon who applies it can alone judge of its effects."

In the third and last place, the author relates three cases where he perforated the middle lobe of the prostate gland. When the swelling is so great that the neck of the bladder is completely blocked up, and no catheter can be passed onwards into the interior, the patient must be relieved at all hazards, else the bladder will slough or urinary coma will succeed. Under these circumstances the surgeon is reduced to the alternative of either puncturing the distended organ, or carrying an instrument through the seat of obstruction.

By the use of a small elastic catheter without a stilette, we have succeeded in relieving retention of urine under the most urgent circumstances. We should say, as a general rule, that the greater the swelling, the less chance there is of passing a stiff, curved instrument. If, after the trial of all ordinary expedients, the bladder still remains unrelieved, then the best and safest plan unquestionably is to perforate the obstruction. The perforation is easily accomplished, and is never followed by disagreeable effects.

British and Foreign Medical Review, Oct. 1840, *p.* 529—531.

51.—NEW OPERATION FOR PROLAPSUS ANI.

By M. Robert.

Relaxation of the sphincter ani being the cause of this disease, all the remedies hitherto employed for its cure are inefficacious when it arrives at the last stage, as they can only act on the mucous membrane of the rectum. These reflections have induced M. Robert to shorten the sphincter in proportion to the amount of relaxation, so that the two cut surfaces of the muscles might unite and form a narrow ring to oppose to the descent of the mucous membrane. This operation was performed with success on a washerwoman, thirty-three years of age, in June 1839, in the hospital of La Pitie. This woman in her third pregnancy had a prolapsus ani, which was only temporary though it caused some pain. Her fourth pregnancy produced a prolapsus uteri, a permanent and considerable prolapsus ani, with relaxation of the abdominal walls. M. Robert excised a portion of the mucous membrane with some temporary relief; but the disease afterwards increased, the discharge of fæces became involuntary, and she suffered from pains in the loins and upper parts of the thighs. When she entered the hospital the sphincter was so much relaxed that four fingers could be easily introduced.

The patient having been prepared for the operation by progressive diminution in diet, and the use of opium, in order to effect long-continued constipation, M. Robert proceeded to operate in the following manner:—An incision was made on each side of the anus, each incision being commenced a few lines external to the orifice, and carried backwards towards the coccyx. The fold of integument between the incisions, together with the portion of sphincter it covered were removed, and the muscle was thus shortened by half its length. The wound was united from one side to the other by three points of suture. On the sixth day after the operation the sutures were re-

moved. Union was nearly complete, but a fistulous passage remained from the anus to the coccyx. On the fifteenth day the woman had not passed any fæces. On the next day, the want of defecation being felt, in order to prevent any straining, the bowels were relieved by the curette. On the forty-first day the patient, who before the operation could not retain her fæces, kept an injection the whole day; there was no more prolapsus; the opening had become of the ordinary size; but the finger when introduced did not experience the energetic contraction of the sphincter which occurs in the normal state. With the exception of a slight protrusion of mucous membrane the cure was complete in August.

British and Foreign Medical Review, Oct., 1840, *p.* 568.

52.—THE GUILLOTINE FOR EXCISION OF THE TONSILS.

As recommended by CÆSAR HAWKINS, Esq.

[By means of the simple instrument here described by Mr. Hawkins, we think that this troublesome, and sometimes tedious operation will be rendered one of the simplest in surgery. Mr. Hawkins says, in a letter to the editor of the *London Medical Gazette*,]

I have found an instrument, which I have been in the habit of using for some time past, so little known to surgeons, who are constantly performing this operation, and so many medical friends, to whom I have recommended it, have been delighted with the facility with which the tonsils can be removed by means of this instrument, that I am induced to draw your readers' attention to it, as a great improvement in surgery. I can do this with greater confidence, because I do not claim the merit of the invention, but only of two or three little alterations in its form, which facilitate its operation.

The instrument is a kind of guillotine, invented by Dr. Warren, of America, or at least recommended by him, which excises the tonsil with great ease and without the possibility of cutting any thing which is not purposely included in it by the operator. A hole of an oval shape is made at one end of a plate of metal, which is gently pushed over the tonsil, and a concealed blade runs in a groove of the plate, and is pushed forward so as to cut off exactly so much of the tonsil as the surgeon causes to project into the hole. The grooved plate has a handle, which can be held in either hand for the right or left tonsil, and the tongue is kept down by the instruments or by the finger of the other hand, and the moveable blade has a little concave knob receiving the thumb of the same hand which holds the handle, by which the blade is pushed forward across the hole, so as to separate the protruding tonsil as it passes; and the excised portion adheres to the blade after the division, so as easily to be pushed forward out of the mouth before it can drop into the fauces. The introduction causes very little irritation of the fauces, because its action is by pressure, instead of dragging on the tonsil, as the tenaculum does in the common manner of operating, and the bleeding very trifling, and the subsequent inflammatory soreness is much less than in the usual operation as the time is shorter in its performance. I have found two different sized instruments sufficient for very young children, or for adults; but they can, of course, be made of any size required.

Medical Gazette, Jan. 31, 1840, *p.* 706.

[The *uvulatome* for excision of the uvula, is an instrument apparently made on a somewhat similar principle, although differing in some respects; it is,]

A novel and most interesting instrument, invented by Mr. John Millikin, of Dublin, for excising any portion of the uvula which it may be desirable to remove. It is a forceps having a sliding blade on the upper surface. The portion to be removed is taken hold of by the forceps, and secured by a small bolt projected by the thumb; the fore-finger then projects the cutting blade which cuts off the desired portion in a moment, which being held by the forceps is brought out of the mouth. This instrument renders the operation an affair of a few seconds—it is simple, ingenious, and effective. The inventor of the uvulatome has, we understand, several other new instruments in progress, which we shall have pleasure in introducing to the notice of the medical public on this side of the Channel.

Medical Times, July 4, 1840, p. 178.

53.—EXTRACTION OF AN OVARIAN CYST.

By B. PHILLIPS, Esq. F.R.S., Surgeon to the Marylebone Infirmary.

[We give the following very interesting case of extraction of an ovarian cyst because we think it proves that the surgeon is warranted to undertake it, although in many cases it has been unsuccessful. It will be seen that this case would in all probability have terminated favourably had it not been attended with other disease.]

There are certain circumstances which are held to be favourable for the success of the operation. A single cyst containing only fluid matter; the absence of adhesion to the abdominal parietes; and a good condition of the general health. Of these, the latter is the only one which can be satisfactorily made out; with respect to the first and second we cannot go beyond probable conjecture. However, adhesions, and even the existence of a solid portion in the tumour, are not held to preclude us from the operation; because both have been successfully surmounted.

A. D., aged 21, had tolerably good general health up to last Christmas, when she experienced a heavy, but not intense pain in the right iliac region; gradually this subsided, and she then perceived a slight enlargement or tumefaction about the umbilical region: this continued steadily to increase, and was accompanied by some pain in the same region.

[She consulted several of the most eminent medical men in London, and among the rest, Dr. Locock and Dr. Hamilton Roe, who both advised the extraction of the cyst. Mr. Liston was of a contrary opinion, and could not advise its removal by operation.]

After twice examining her, satisfying myself that there had been no peritonitis, that there were probably no adhesions, that her distension was fast increasing, that she was daily becoming less and less capable of getting about that her health was beginning to suffer, and that she had then probably fifteen or sixteen pints of fluid in the cyst, I reiterated Dr. Locock's advice.

[This advice she was determined to follow, and accordingly on Wednesday, Sept. 9th, the operation was performed as follows, in the presence of Doctors Roe and Clendinning, and several other eminent men.]

The patient lay on a bed. The first incision commenced about an inch below the umbilicus, and extended rather more than an inch and a half. It was necessary to give the cutaneous incision rather more extent than I at first proposed, because (strange to say, considering how great was the distension) there was three-quarters of an inch of fat upon the abdominal parietes. I dissected carefully, until I came upon the sac; as soon as I had sufficiently exposed it, I seized it with the vulsella to prevent any difficulty of getting

hold of : when emptied. It was then punctured with a trocar, and 330 ounces of a transparent, glairy albuminous fluid was evacuated: the sac, which was extremely thick, was then drawn out through the opening, which it was necessary to enlarge slightly. The sac had no other attachment than its pedicle; the pedicle was, in fact, the Fallopian tube, to which it was firmly attached over more than an inch and a quarter. Around this tube a ligature was tightly drawn by Mr. Samwell; the ends were cut close, and the sac was detached without the slightest difficulty. Not an ounce of blood was lost during the whole operation; and when it is stated that her heart's action had not been accelerated to the extent of two pulsations during the operation, and that at the conclusion, the pulse did not exceed 68, it must be evident that the suffering was not great. The external wound was accurately brought together with hare-lip needles, and there was no oozing of blood. From the moment of the operation there was severe pain in the right iliac fossa, which I referred to the strangulation of the tube by the ligature; there was also frequent sickness. To relieve this pain, in an hour after the operation an opiate enema was administered; it produced little relief, and in two hours afterwards, a draught containing thirty minims of the bimeconnate of morphia was exhibited: still the pain distressed her, and in two hours more a pill containing half a grain of the chloride of morphia was administered, and late in the evening another enema, containing forty-five drops of the liquor opii sedat., was thrown up, and a draught, containing tinct. digital. *m*x.; acidi hydrocyanic. *m*ij.; morphiæ chlor. gr. ½, ordered to be taken every four hours. During the evening, when vomiting supervened, there was an oozing of blood from the wound, but to no great extent. It was not easy to account for it, because no vessel was wounded during the operation. The only point upon which suspicion lay was the ligature around the Fallopian tube; but as there was no evidence of blood being poured out into the abdominal cavity, the suspicion seemed vague.

[The patient for a time went on well, but ultimately died from another disease, as will be seen by the following account of the post mortem examination:]

She was examined on Monday, (at 2 o'clock,) in presence of Drs. Clendinning, Harrison, Lee, and others; the abdomen was soft and flat; the incised point was nearly healed. When the cavity was exposed, a diffused injection was apparent, but, with the exception of some small patches of lymph, none of the ordinary products of peritonitis existed. In the cavity from six to eight ounces of blood were found; it contained a few coagula, but it was dark in colour. Upon examining the Fallopian tube the ligature was found in its place; but it was evident that, from its hypertrophied condition, it resisted the necessary constriction, (although Mr. Samwell had used much force) and the extravasation was a consequence of oozing from the extremity of the tube. That oozing, however, had long ceased; for nature had blocked up the vessels. The opposite ovary was not healthy. Upon laying open the large intestines we found them covered with an exudation such as is found in croup—a false membrane: when this was torn off with a forceps, the membrane presented what the French pathologists term an *erosion*, which was, no doubt, the commencement of extensive ulceration, and which was clearly of some standing.

[Mr. Phillips concludes this interesting case as follows:]

Although extraction did not succeed in the case of this young woman, it did not, in my opinion, fail from any vice inherent in the operation. I say, without hesitation, that her death was caused by the state of her bowels, and with that I apprehend the operation had nothing to do. I say, with equal confidence, that had this complication not supervened, there is great reason

for supposing that the operation would have succeeded. Up to the moment when that cholera-form affection was developed, fifty-six hours after the operation, the prospect was most cheering; the abdominal tenderness was greatly abated, the pulse had been reduced to ninety-two, and those who had at first no confidence in the operation, now became sanguine of a successful result. The dangers of the operation, which I had anticipated, were difficulty of getting at or extracting the cyst, the shock of the operation, and peritonitis. In the present case no difficulty was experienced as regards the two first points; and I am fully justified in saying, that the degree of peritonitis was by no means incompatible with recovery. Acute pain followed immediately upon the operation, and continued for many hours: for some time it was a good deal confined to the right iliac fossa, the seat of the ligature, and I was disposed to refer it to the constriction of the ligature; but I am now inclined to think that it was not produced by that, but was excited by the blood which exuded from the cut surface of the tube; it was at first developed at that point, but as the blood was spread over a larger surface of the peritoneum, the pain was also spread farther. I say I am disposed to adopt this conclusion, though I may have no sufficiently satisfactory proof that blood in contact with the peritoneum will at once excite severe pain. I have only two cases to adduce in proof of such an effect. One was an aneurismal tumour, which had burst into the cavity of the peritoneum; the pain was immediately dreadfully intense: in the other case, the spleen was ruptured by a fall: immediate agonizing pain was developed all over the abdomen: about six ounces of blood were found in the peritoneal cavity. In opposition to this opinion, I know that Mr. Gulliver has injected blood into the abdominal cavity, without exciting inflammation, or apparently pain. In our case the ligature had excited no peritonitis; the blood had, but it was not intense, though diffused; the early and energetic treatment employed had prevented its further developement, had induced it to enter upon a retrograde course; this, I submit, is proved by the great abatement of pain, the lesser frequency of the pulse, the relief of the sickness, the absence of tympanitis, the ability to lie perfectly straight without inconvenience, the character of the face, and the occurrence of three good stools. The blood had ceased to ooze; the inflammation produced by that which was extravasated was fast abating, and the ligature had not proved itself apt to excite peritoneal inflammation at all. I say, then, that so far as the operation is concerned, it afforded, in the present case, a fair and probable cause to believe that it would have succeeded, if we had not had to contend with the supervening affection.

My confidence in the operation, when there is reason to believe that there are no adhesions, and that the patient's health is satisfactory, is greater than when I undertook it in the present case; and when we take into account the results of medicine, of tapping, or of the disease left to itself, I think no one can doubt that an operation which, under adverse circumstances, has succeeded nine times out of twelve cases, ought to be resorted to, before complications or counter-indications are developed.

Medical Gazette, Oct. 9, 1840, *p.* 84—87.

54.—REDUCTION OF STRANGULATED INGUINAL HERNIA,

BY THE METHOD OF DR. HESSELBACH.

[We extract the following, as it will confirm other cases given in this work: see article 57 of our first No.:]

Dr. Lyncker attended (April 25) a cachectic old woman, who had suffered for four days from a strangulated inguinal hernia. The belly was swollen, but not painful; the seat of the rupture was painful, but without any other

perceptible change. The taxis was ineffectually employed. Leeches, cold applications, and tobacco clysters were made use of. On the following day the taxis was again resorted to but without effect.

During the night of the twenty-sixth and on the twenty-seventh of April, there came on fæcal vomiting, with great restlessness, anxiety, and debility; but there was no change in the situation of the hernia. The taxis was again carefully employed, but made no impression on the swelling. The patient would not submit to an operation. Dr. Lyncker bethought himself of the method of reducing intestinal ruptures, thus described by Dr. Hesselbach: "A strong man should place himself at the end of the bed on which the patient is lying, and placing the legs of the patient over his shoulders, so that each knee of the patient shall rest upon one of his shoulders, his feet hanging downwards, shall then raise up the patient. The thighs of the patient are thus drawn upwards, his head and body resting upon the bed. In this position the taxis is to be repeated."

By placing the patient in the position above described, and re-employing the taxis, the ruptured bowel was suddenly reduced.

British and Foreign Medical Review, July 1840, *p.* 268.

Dr. Warneke recommends the following means, when those usually employed for the reduction of strangulated herniæ have failed. The patient is to take the following:—Opium, two grains; powdered belladonna root, four grains; sugar, four scruples. To be divided into eight powders, of which one is to be taken every half or quarter of an hour. The hernia is to be covered with a warm poultice, containing powdered belladonna, and bandages are to be placed pretty firmly round the upper part of the patient's thighs, close to the abdomen, to retard the return of the venous blood from the lower extremities, and render bleeding unnecessary. The author declares that by these means all the symptoms of strangulation are speedily removed, the patient falls into a quiet sleep, and a profuse sweat, after which the hernia will be found soft and easily reducible.

Medical Gazette, Oct. 30, 1840, *p.* 222.

55.—ON SUBCUTANEOUS WOUNDS.

By M. Guerin.

Every one has heard of the proposal, or rather now the practice, of M. Guerin, of Paris, in the treatment of lateral curvatures of the spine—the subcutaneous division of several of the muscles of the back.

From what he recently stated to the Royal Academy, he has met with extraordinary success. "I have, in nearly fifty cases, divided more or less completely most of the muscles of the back and spine—viz., the trapezius, the rhomboideus, angularis scapulæ, sacro-lumbaris, and longissimus dorsi. In each of these operations, the wound of the muscle has been from three to four inches in length, and sometimes from one and a half to two and a half inches in depth, when the sacro-lumbaris and longissimus dorsi muscles were completely divided: in those cases where the trapezius and rhomboideus were entirely cut across, the bistoury traversed at least from four to five inches, or more, under the skin.

In almost every one of these cases, no local inflammation nor constitutional feverishness supervened, and by the third day many of the patients were able to rise up and walk about without support. This most pleasing exemption from the accidents which so often follow upon ordinary wounds, is entirely attributable to the circumstance of the air not coming in contact with the freshly divided surfaces: the tendency to inflammation seems

scarcely to exist, and the parts commence and complete the reparative process without interruption or pain."

In addition to a multitude of experiments performed on dogs, M. Guerin has established the perfect innocuousness of subcutaneous wounds in operations for the relief of various forms of distortion. He has divided the sterno and the cleido-mastoid muscles (separately, simultaneously, or consecutively) for wry-neck twenty-five times: in every one of these cases—the section having been made under the skin—the wound healed without the smallest trouble. Occasionally the operation was effected with considerable subcutaneous effusion of blood; but this was usually absorbed in twenty-four hours or so, and the reparative process then rapidly took place. Again, the operation of dividing the tendo Achillis for clubfoot he has performed upwards of 200 times; and in all these also he has been equally successful. In the practice of other surgeons, indeed, inflammation and suppuration have followed this simple operation; but these troublesome consequences are, we suspect, always owing to the outer wound having been made too large, and the air having thereby been permitted to enter.

"That such is the case, is surely sufficiently proved by the success which has attended my operations. I have now performed the subcutaneous section of different tendons and muscles in upwards of five hundred cases; and in not one instance has any troublesome inflammation of the wound supervened."

The great object, therefore, of the surgeon should be to prevent the entrance of the external air into the wound.

"From all these circumstances," continues M. Guerin, "I infer that subcutaneous wounds so quickly heal in consequence of the exclusion of the external air; and that it is from this fluid (the air) neither physically obstructing the circulation, nor chemically modifying the properties of the blood, nor altering in any degree its vital constitution, as well as from its not exerting any hurtful influence on the nerves and other parts which are protected from it, that the lacerated or divided tissues coalesce and unite by the first intention without any of the usual inflammatory symptoms."

That there is much truth in this observation, is apparent from the surprising rapidity with which extensive effusions of blood are absorbed, and laceration of the soft tissues after some dislocations and bruises are healed, when there is no outward wound communicating with the seat of the injury. The great source of danger in compound fractures and dislocations is doubtless in the exposure of the lacerated parts to the action of the atmosphere. The dangerous effects of the admission of the air into the sacs of large abscesses is also well known to every surgeon.

Postscript.—The principle of subcutaneous division may be advantageously applied to other operations, besides that of the section of contracted muscles and tendons in cases of deformity.

In a recent number of the *Gazette Medicale*, we observe that M. Barthelemy, surgeon of the Hospital Gros Caillou, at Paris, has strongly recommended this method of dividing synovial tumours. He slides a longish, narrow-bladed scalpel under the integuments, and cuts the tumour fairly across in the middle, so that all its contents must be extravasated into the surrounding cellular tissue; the knife is then withdrawn by the small puncture, and firm compression is made on the part for a few days.

M. Barthelemy mentions three cases in which this mode of treatment has been quite successfully adopted. He suggests also, that perhaps other kinds of tumour may be advantageously treated in the same manner.

M. Malgaigne also has adopted in one case, where there were several ganglions or synovial swellings over different joints, the method of dividing the tumours fairly across from side to side under the integuments. He suggests its applicability to the treatment of some cases of hydrocele.

Gazette Medicale; and Med. Chir. Review, July, 1840, p. 225.

[A case is related in which M. Guerin divided the tendons of forty-two muscles in one patient for the removal of deformity in so many parts of the body.]

The division of the forty-two muscles was effected by means of only twenty-eight punctures in the skin; and the muscles were as follows:—

On the trunk.—The great pectoral.

At the elbows.—The two bicipites, the two pronators, the two anterior radials, the two superficial flexors, the two small palmers.

On the fore-arms.—The isolated tendons of the two anterior cubitals, the four great and small palmers the two great abductors of the thumb.

At the knees.—The two sartorii, the two crural bicipites, the two semi-membranous, the two semi-tendinous, the two inner recti, the two external lateral ligaments, the fascia lata.

At the feet.—The two tendons of Achilles, the two anterior crurals, the two common extensors, the two extensors of the great toe, the two anterior peroneals.

The operation lasted an hour, and was performed with very little pain to the patient. The inflammatory action supervened, and on the third day the external openings were cicatrized. The arms and legs are in part restored to their natural direction. This universal deformity arose in consequence of a fall and shock of the nervous system, during his infancy, which had produced a contraction of all his limbs. Extension by mechanical means had been tried without the slightest beneficial result. It will be remarked that the success of these operations is only partial. Perhaps other incisions may be necessary for complete success. M. Guerin, in his report to the Academy of Sciences, says not a word as to the result.

Medical Times, Sept. 19, 1840, *p.* 310.

[Dr. Laycock, of York, writing on the subject, states:]

On September 11, I operated on a case of lateral curvature of the spine, dividing the trapezius and rhomboid muscles by two subcutaneous incisions. The two wounds were quite healed on the fourth day, and the patient never ailed anything. I have also had two successful squint cases, seven or eight of talipes, two of contracted wrist, (dividing the radial and ulnar tendons,) one of contracted elbow, (dividing the biceps.)

I shall shortly operate on four more cases of distortion, namely, a wry-neck, a contracted shoulder, a contracted hip, and a contracted knee. I believe you may divide the muscles, &c., under the skin to any extent.

Dublin Medical Press, Oct. 21, 1840, *p.* 259.

[The following case is given by Mr. G. B. Childs; but the result of the operation is not mentioned.]

On examining the back, I found the deviation to extend from the last cervical to about the sixth dorsal vertebra: below this the vertebra suffered no displacement, but occupied precisely the mesial line of the back—a circumstance most unusual in a case of so long standing. The right shoulder was considerably elevated above its fellow, with a corresponding displacement of the clavicle, but there was no excurvation of the ribs: on either side they retained their natural situations.

The rhomboid and trapezius muscles were greatly enlarged, and by bringing the forearm across the chest were so stretched that a finger could easily be passed beneath the rhomboideus minor. The muscles on the left side were so diminished in bulk that they could scarcely be traced; a circumstance I hold of great importance in the operation.

The patient being placed in the prone position, with the chest consider-

ably elevated, and the head hanging over the table, Mr. Coulson produced tension of the muscles on the concave side of the curve by drawing the left arm forwards, whilst Mr. White, by raising the right shoulder upwards and outwards, kept the rhomboid and trapezius on the stretch. I then introduced my knife (which was about four inches in length, and the eighth of an inch in breadth) as close to the ribs as possible, midway between the inferior angle of the scapula and the spinal column, and carried it upwards as far as its superior angle: I then withdrew the knife, bringing its cutting edge in contact with the anterior surface of the muscles, and as close as possible to the integuments, without wounding them, and in this way completed the operation, which occupied less than a minute. The loss of blood was trifling, and the patient complained of very little pain.

Medical Gazette, Nov. 27, 1840, *p.* 376.

56.—SEAT OF BLENNORRHAGIA IN FEMALES.

A report of the Academy of Medicine having erroneously ascribed to Dr. Gilbert an opinion, that in the gonorrhœa of women, vaginal discharge *commonly* co-exists with the urethral. He has published the following extract from his Memoir to the Academy, to show his opinion to the contrary, and that the vaginal discharge or secretion from the vagina *itself* is more commonly *absent;* also that the discharge lining the vagina, will be found frequently to arise from the neck of the uterus. In females, says the author, the seat of election of *blennorrhagia* is the meatus urinarius, as in the man; but in all cases where I have used the speculum, I have seen a *uterine discharge* accompanying that of the urethra, and continuing after the latter is cured, so that *the neck of the uterus may be considered the principal source of the blennorrhagic flux in women.* Nevertheless, some modern writers have designated the female clap by the term vaginite, or inflamed vagina; but in the *immense majority of cases, the vagina does not secrete the discharge*, and if it be sometimes red, this appearance is transient, and yields rapidly to repose and cleanliness. It is only in a few rare cases that we meet with a milky or purulent discharge, really furnished by the vagina; on the contrary, in every woman who has contracted a clap, there exists, during the two or three weeks, a characteristic suppuration, together with a discharge, originating in the *neck* of the uterus, which last, by its continuance after the cessation of the urethral symptoms, may be confounded with leucorrhœa.

Medical Times, Oct. 17, 1840, *p.* 34.

57.—CHLORIDE OF ZINC IN NECROSIS.

The difficulty of penetrating the hardened case of new bone when long formed, is too well known to require any comment; and it not unfreqently happens that any attempt to reach the sequestrum is either rendered abortive thereby, or occasions such a degree of disturbance to the whole shaft, as to produce more harm than good. Mr. Guthrie, to whom I allude, has availed himself of the peculiar properties of a remedial agent recently introduced, the chloride of zinc, which, attacking the animal tissue of the bone, destroys it, and thus causes the earthy matter to soften and become detached. The sequestrum is by this means exposed, with little pain or disturbance of the part, and may be dealt with according to circumstances. To the success of this plan I can myself most willingly testify.

Mr. James's Retrospective Address; and Medico-Chirurgical Review, July, 1840, *p.* 48

MIDWIFERY.

8.—INVESTIGATIONS REGARDING THE PLACENTA.

By Hugh Carmichael, Esq. (In a note by Dr. Power.)

The position which the afterbirth occupies in the womb in the different stages of gestation, has lately been undergoing a very interesting, and as we may say satisfactory inquiry, at the Coombe Lying-in Hospital, Dublin, by Mr. Hugh Carmichael.

The opinion respecting the situation of the afterbirth in the womb has heretofore, as is well kown, been that, with some few exceptions, inasmuch as its first formation takes place in the vicinity of the fundus, at the uterine extremities of the fallopian tubes, in that position it continued throughout gestation. Mr. H. Carmichael has shown, as well by reasoning on the matter as by demonstrative proof, that this opinion is erroneous, and that, although its position may, at its formation, be as above stated, yet, by the time labour is about to come on, it has so changed that position that it is then low down on the posterior wall of the womb, generally either to the right or left side, according as the fallopian tube lies through which the ovum entered the uterus.

The first of these points, which relates to its original formation at the fundus, Mr. C. does not think it necessary to dwell on; it is admitted generally. To the position of it when labour is near, and the changes in this respect it appears to be undergoing during gestation, his attention has been chiefly directed, and as it appears to us with complete success.

The mode adapted for this purpose consists in an examination of the secundines after their delivery, the membranes of which, he shows, bear such marks as will enable us to ascertain where each part of them lay when within the womb, and thus assign to the placenta, which is always attached to them, its uterine position likewise.

Mr. H. Carmichael remarks, in his interesting essay, that it has been observed by several writers on midwifery, that the distance the placenta lies from the fundus or from the mouth of the womb may be ascertained by simply observing the secundines after their delivery. The child, it is known, is enveloped in the membranes within the uterus, in a shut bag, similar in formation to the peritoneum, or any other of the serous class; and in order to its birth, the head, or whatever part presents, must first perforate this bag where it corresponds to the mouth of the womb. The membranes, with the placenta attached, are afterwards delivered uninjured or broken elsewhere, and the distance the placenta is from the perforation at once demonstrates where its distance from the mouth of the womb was when within the latter.

Mr. Carmichael, however, has gone further in his examination of these parts than his predecessors. All former inquirers merely sought to learn from them the altitude of the placenta in the womb, and even this we may say none made the subject of conclusive inquiry, as is evident from the opinion of the present time being, that the fundus is its usual position at all stages of gestation. Our author, however, has shown that, by inspecting them in

the manner pointed out by him—first, that the placenta is, in ninety-six times out of the hundred, in the vicinity of the aperture made in them by the head previous to its birth; and next, that the longest part of the membranes give evidence of having lined the most distended or concave part of the womb; the shortest, one comparatively of a straight superfices.

The inference he obviously deduces from these facts are twofold. The one, that the fundus is not the situation of the placenta at the close of utero-gestation, but that it is somewhere near the os uteri; and the other, that somewhere is on the posterior surface.

Mr. Carmichael then goes into a very ingenious disquisition as to how the womb enlarges as the child grows. He contends that this cannot be in the way generally supposed; the fundus rising up and maintaining its position unaltered all through; because in that case, he says, the placenta, which is first formed on that part of the womb, would continue there, and the inspection of the secundines, as above, would discover it implanted on them exactly opposite their aperture or opening. He then declares his opinion on this point to be, that to account for this apparent sinking of the placenta on the posterior part of the womb, the anterior part of the organ must chiefly supply the increasing superfices, while the back part of the womb, and what was the fundus on the formation of the placenta, only increases in a proportion sufficient to accommodate the placenta. If the fact be that the placenta is found at the close of utero-gestation low in the womb, as Mr. C. states, this appears a very natural conclusion, because its first formation being at the uterine opening of the fallopian tubes, it would be difficult otherwise to account for the change of position; and some explanation of how this takes place may be derived from the mechanical effect produced on the front of the womb by the weight of the increasing child, pressing against that part of the organ, and thereby loosening out its texture, and which could not occur in the same way in any other part of it.

Mr. Carmichael then submits, that if this be the mode the womb enlarges, the contractions must take place in a corresponding retrograde direction; so that if uterine expansion goes on, on the anterior wall chiefly, its diminution or expulsive efforts at labour must be there likewise: and on this supposition he explains several matters connected with the process of gestation and parturition, which, it must be admitted, were heretofore very unsatisfactorily accounted for.

Medical Gazette, Aug. 7, 1840, *p.* 752.

[Mr. Hugh Carmichael, writing on this subject, in a subsequent number of the Medical Gazette, says:]

I believe it is a matter fully admitted, that the ovum first attaches itself to the uterus in the immediate neighbourhood of the fallopian tube it traversed; it is retained there, when it enters the womb, by the part of the the decidua which covers these uterine apertures, and there the placenta is first formed.

The substance of my remarks, then, upon the subject in question, rests upon two points: the first, that at the period this attachment takes place the uterine aperture of the tubes, and consequently the newly-formed placenta, is at or near the fundus of the womb; and the second, that at the close of gestation, they are, and particularly the latter, low on the posterior wall. I have stated in my original paper that the membranes, when delivered, will be found to be so marked as to enable us to ascertain this second point, and that according to their testimony, I found it (the placenta) there to be situated, as above stated, in 96 or 97 times out of the 100.

Before, however, we proceed to examine the merits of this doctrine, I have to state, that it is now admitted the fundus is not the position of the afterbirth, (I shall take leave to say—*at the close of testation.)* It is found by ex-

amining the secundines, that its *(then?)* place on the membranes, relative to the aperture in them made by the escaping child, is somewhere in the vicinity of the mouth of the womb: there were but three exceptions to this in the hundred cases recorded in this table.

He brings forward a table of Naegele's, who asserts that in six hundred cases which he examined, the placenta was situated:]

At the sides of the womb,	379	
Undeterminable,	180	
At the fundus,	7	
Anterior wall,	13	*only.*
Over the os uteri,	11	
Calcareous deposits,	10	
	600	

This account shews the greater number capable of being diagnosed by the stethoscope to have been laterally to the right or left side, which, at page 78, Naegle denominates "the ordinary position of the placenta," and which, I submit, corresponds with the view I have taken of the subject. Naegele says this position is in consequence of the vessels of the womb being greater at the sides than elsewhere. I would, however, suggest as a reason for it, what I have already stated in my paper. The original formation of the placenta takes place at the orifice of the tube the ovum traversed, which is *then* at or near the fundus. At the full period of gestation, however, the tubes have sunk posteriorly and laterally about one-half on the uterine tumour (Hunter and Cloquet's plates). In this movement the attached placenta must of course participate, and thus it is that it is found there then. If that part of the womb be best supplied with blood, the effect of this change will be the more complete, as it will bring the full-grown placenta where it will be best supplied with it.

Now I would contend for it, that there must be some reason why nature has in a measure excluded it from this position, and also that of the fundus (it was found by him in the latter position but *once* in the hundred;) and I would submit that this is in consequence of the expansion of the womb taking place in the greatest degree in these parts of it. Were the afterbirth here attached, it is evident that the growth of the two organs would not correspond; that of the womb would exceed that of the placenta, and disturbance of the function of the latter must be inevitable, with its consequences on the mother and child; but placed as it is, *laterally and posteriorly*, it is on a part which increases in a ratio that is adapted to the placenta only, while the increase of the anterior and fundal department is reserved for that of the child.

Medical Gazette, Oct. 2, 1840, *p*, 53.

[If Mr. Hugh Carmichael's views of the situation of the placenta be correct, our own views respecting the action of the ergot of rye, as given in our first number, may be somewhat corroborated thereby; for the placenta by being situated low down in the uterus may be subjected to continued pressure by the *uninterrupted* action of the womb, from the effects of the ergot; and thus a double cause may exist for the stoppage of the circulation between the mother and child: for not only may the circulation be in a great measure impeded in the uterine parietes, and especially through the curling arteries of Hunter, by the *continued* contraction, but the pressure of the head downwards and backwards in the first stages of labour may very probably produce complete pressure on the placenta, and also upon the vessels of the cord as they enter and proceed from the placenta. And if these views be correct, another circumstance

would also be partly accounted for. He supposes that the placenta is generally situated low down in the uterus and generally on the posterior part: so that when the child's head descends downwards and backwards from the brim of the pelvis into the hollow of the sacrum, it will necessarily compress the placenta against the sacrum: but when the head assumes a different direction, viz., forwards and downwards, which it does in the last stage of labour, this compression against a hard body will not be so liable to occur. And we must confess that this seems very plausible: for on recalling to our recollection those cases of still born children which have occurred after the violent action of ergot, we must acknowledge, that the child has generally been high up in the pelvis when the medicine was given: and we think we are safe in asserting that ergot will prove more dangerous when the head of the child has yet to descend *towards*, and upon the sacrum, than when it has already passed that place and made the turn forwards *from* the sacrum. So that we may offer this simple, but important suggestion to the profession, never to give secale (unless quite unavoidable) when the child's head has yet to descend into the pelvis and especially when the os uteri is turned a good deal backwards. Even if the os uteri is quite dilated and the head still high up in the pelvis we should be afraid of the ergot, not only from the circumstances related in our first number, but from the liability to pressure upon the cord and after-birth, against the sacrum or some other parts of the pelvis; for if the placenta be situated posteriorly and *laterally* in the womb, which it often is, the pressure would be against the *sides* of the pelvis, and not so much against the sacrum itself.

Many objections have been raised against the views of Mr. Carmichael in the Dublin Journal of Medical Science, for March, 1840, to which we refer our readers. Mr. C. answers these objections in the same journal for July, 1840: and as this important opinion has not yet been settled to the satisfaction of all parties, we refer the reader to the XIVth vol. of the journal above named, and the numbers for July, 1839, and November, 1839, and we also think it right to lay before the reader the following opinions of Dr. Doherty, who, we must confess, advances some weighty arguments to support his own views in opposition to those of Mr. Carmichael. Referring to the above positions of Mr. C., he says:]

Against these positions I argued as follows:—If it be a fact, that the growth of the fundus is so great that the placenta could not maintain with it an equality of development, hæmorrhage must, in every instance, result, when the after-birth is found at the period of labour either wholly or in part within the upper segment of the organ; and if this be the case with the fundus, it must be much more so with the anterior wall, supposing its expansion to take place so extensively as described. It appeared to me, therefore, that if I instanced cases which exemplified the placenta—first, high up on the posterior wall—secondly, attached to the fundus—and thirdly, attached anteriorly—cases in which no untoward occurrence happened to either mother or child—I should hence demonstrate his theory to be built on an unstable foundation. This I accordingly did. At the same time, I pointed out the circumstances which, in my mind, influenced the seat of the placenta. I observed that the height at which the ovum attaches itself, must depend, in a great degree, on the decidua reflexa; if that membrane be rapid in its growth, or easily prolonged, the ovum of course arrives at a lower part of the uterus before it forms its union with the maternal structures, than where the reflexa is of opposite qualities—a fact which is proved by the inspecti on of abortions, the cord obviously springing in different specimens at a higher or lower elevation. The evidence thus obtainable, too, is quite at variance with Mr. Carmichael's statement, that the ovum invariably forms its first adhesion

on the fundus, or close to it. I also noticed the possibility that the wall on which the placenta forms, depends, firstly, on the position of the uterus at the time, and secondly, on the quantity of the fluid its cavity then contains. In the usual condition of the parts, the uterus placed obliquely, the fundus leaning forward, the hydroperione must float the ovum, contained in the reflexa in contact with the upper portion of the posterior wall; and accordingly there the ovium, in a large proportion of instances, attaches itself. But if the quantity of decidual fluid be not sufficient to support the reflexa in the manner described, its gravity carries it towards the anterior wall, and there the placenta is formed. It is probable also, that if the uterus presents a less degree of obliquity, or leans to one or either side, the reflexa will be elevated by the hydroperione to that which is uppermost, and there the union will be accomplished.

With respect to the fallopian tubes, I quoted a passage from Dewees, which, I repeat, will be found at page 88 of his treatise, in which he stated that the enlargement of the uterus is confined almost entirely to the *posterior* segment, and that at the termination of pregnancy the tubes are situated *anteriorly*. This passage Mr. Carmichael declares he has not been able to find; the fact he denies. But if he will only pass a line around the gravid uterus at the full time, when the tubes penetrate its substance, he will find three-fifths situated posteriorly to them, and two-fifths anteriorly. This observation I had from Dr. Montgomery, whose accuracy on such a subject no man will question; its correctness I have verified by reference to casts and preparations in his museum.

I found that out of 100 cases, in 25 the placenta was attached to the anterior wall; in 10, to the left side, extending to the anterior wall; in 8, to the right side, also extending to the anterior wall; in 54 it occupied the posterior segment of the uterus, either in a central position, or approximating, as it usually did, to one or the other sides; and that of these posterior placentas, only 27 came "within two inches of the lowest part of the cyst."

Let him only grant me one case, as he has done in appealing to M. Naegele, and I say his theory is untenable; for, in the first place, it is impossible, with his mode of expansion, that the placenta could ever adhere to that particular part; it must in every instance be turned over to the back of the uterus; and secondly, according to him, such a case, if it could occur, should be attended with hæmorrhage, as must also those in which the mass adhered to the fundus.

But I insist that, according to the mode of growth described, the placenta should in every case be found, not anteriorly, nor even laterally, but occupying the posterior wall alone. If it be first attached to the fundus, and if its position be altered by the increase of the anterior wall, it should be in every instance (to use the author's own words) "turned over to the back of the womb;" and every single case in which it is otherwise situated militates against the doctrine advanced, particularly those in which it assumes and maintains throughout gestation an anterior position. As Mr. Carmichael never witnessed a case of this sort uncombined with some unnatural circumstance, I shall mention one, besides those I have already referred to in my papers, which it is in his power to examine for himself. A few weeks since I removed the uterus from the body of a young woman, who died after a few hours' illness, in about the seventh month of pregnancy. The preparation I this day examined with Dr. Wm. O'B. Adams, the Professor of Midwifery to the Apothecaries' Hall, in whose museum it now is. We found the placenta still adhering to the centre of the anterior wall, to which the bladder (a sufficiently distinctive mark) is still appended. Why, I would ask, was not this placenta carried up, if this extraordinary and novel extension of the wall on which it was implanted, was going on?

Medical Gazette, Nov. 27, 1840, p. 351—358.

59.—ON THE FUNCTIONS OF THE OVARIES IN MENSTRUATION.

By Dr. Robert Lee.

[It will be seen by the following observations of Dr. Robert Lee, that Mr. Cruikshank and himself anticipated M. Gendrin in his recent theory of menstruation as given in our first number; and there is no doubt that the following facts will serve in some measure to enlighten us respecting this interesting process.]

There are certain facts which seem to prove that it is not to the influence of the uterus, but to the ovaria that we are to attribute all the changes which take place in the female pelvis, in the mammæ and uterine system at the period of puberty; and it seems not improbable from the following facts, that it is also to certain changes in the Graafian vesicle at the time of menstruation that all the phenomena of that singular process are to be referred.

On the 11th of March, 1831, we examined the body of a young woman who died during menstruation from inflammation of the median basilic vein. The left ovarium was larger than the right, and at one point a small circular opening, with thin irregular edges, was observed in the peritoneal coat, which led to a cavity of no great depth in the ovarium. Around the opening, to an extent of three or four lines, the surface of the ovarium was of a bright red colour, and considerably elevated above the surrounding part of the peritoneal coat. On cutting into the ovarium, its substance around the opening and depression was vascular, and several Graafian vesicles of different sizes were observed. The right ovarium was in the ordinary state. Both fallopian tubes were intensely red and swollen, and their cavities were filled with menstrual fluid. The lining membrane of the uterus was coated with the same fluid, and the parietes were soft and vascular. The size of the uterus was not increased.

In the autumn of the same year a woman under twenty years of age died suddenly from acute inflammation of the lungs while menstruating. The body was examined by Mr. John Prout, and the uterine organs were brought to us for inspection. A red soft elevated portion of the right ovarium was also here observed, and at one part the peritoneal coat to a small extent had been removed. The edges of the opening were extremely thin and irregular, and in the substance of the ovarium under the opening was an enlarged Graafian vesicle filled with transparent fluid. Numerous small blood-vessels were seen running along the peritoneal coat of the ovary to the opening. When the substance of the ovarium was laid open, several vesicles of various sizes, and at different depths, were found imbedded in it. The left ovarium presented a natural appearance. The free extremities of the fallopian tubes were gorged with blood. Their cavities were filled with a red-coloured fluid. The uterus was not enlarged, but the parietes were gorged with blood and the lining membrane of the fundus was coated with menstrual fluid. A small coagulum of blood likewise adhered to the upper part of the uterus.

On the 2d of July, 1832, Sir Astley Cooper, to whom the writer had mentioned these cases, sent him the ovarium of a woman who died from cholera while menstruating. The ovarium was much larger than natural, and at one point there was a small irregular aperture in its peritoneal coat through which a portion of a slender coagulum of blood was suspended. On cutting into the substance of the ovarium, it was found to be occupied by three small cavities or cysts, one of which was filled with a clear ropy fluid, another with semi-fluid blood, and the third, which communicated with the opening in the peritoneal coat of the ovarium, with a firm coagulum.

On the 18th of November, 1832, the uterine organs were removed by Messrs. Girdwood and Webster from the body of a young woman who had

died suddenly the preceding day when the catamenia were flowing. Both ovaria were remarkably large, and both fallopian tubes were red and turgid. The peritoneal coat of the left ovarium was perforated at that extremity which was nearest to the uterus by a circular opening, around which aperture for several lines the surface of the ovarium was elevated and of a bright scarlet colour, like extravasated injection. The margin of this opening was thin and smooth, and did not appear to have been produced by laceration. Its centre was slightly depressed below the level of the edges, but there was scarcely the appearance of a cavity beneath. The right ovarium was much larger than the left; and when cut into, a cavity or cyst was found which was filled with half-coagulated blood. The peritoneal coat of this ovarium was entire.

"The uterus was large, and when cut into, the parietes appeared to contain an unusual quantity of blood. The inner membrane was of a bright red colour, and coated with a thin layer of catamenial fluid. Both fallopian tubes were red and turgid, and the interior of the left was filled with menstrual fluid, but nothing in the form of a Graafian vesicle could be detected in the tube. The appearances now described have been accurately represented in a drawing made from the parts within two hours after they came into the author's possession.

"In a paper by Mr Cruikshank, published in 1797, there is an account of similar appearances having been observed by him in a young woman who had died at the monthly period. 'I have also,' he says, 'in my possession the uterus and ovaria of a young woman who died with the menses upon her. The external membranes of the ovary were burst at one place, from whence I suspect an ovum escaped, descended through the tube to the uterus, and was washed off by the menstrual blood.'" (Cyc. of Practical Medicine.—Article Ovaria.)

The following case was recently communicated to the Medico-Chirurgical Society:

"On the 14th of January, 1837, a woman, thirty-seven years of age, who had long suffered from hysteria, died suddenly in St. George's Hospital during menstruation. No morbid appearance was found to account for her death. A small circular aperture was observed in the peritoneum of the left ovarium, near the point where the corpus fimbriatum is fixed to the extremity of the ovarium. This opening communicated with a cavity in the substance of the ovarium, which was surrounded with a soft yellow substance of an oval shape."—(Med. Chir. Transactions, vol.xxii. p. 335.)

British and Foreign Medical Review, Oct., 1840, *p.* 592.

In Dr. Robert Hooper's large work on the morbid anatomy of the uterus, there is an engraving of the uterus, fallopian tubes, and ovaries, taken from a female who had died during menstruation, showing a similar condition, and published several years before Dr. Robert Lee's paper in the "Cyclopedia of Practical Medicine." In 1821 was published an octavo volume, by Dr. John Power, containing "a new view of the nature, causes, &c., of the periodical discharge of the human female," which, although mixed with some absurdities, promulgated precisely the same theory, and even went so far as to consider menstruation to be "disappointed pregnancy"; that the same changes took place precisely in the ovaries as described by Cruikshank during each menstrual period; that great vascular excitement and congestion took place, with the formation of an actual ovum or Graafian vesicle; which, being denied, the vivifying influence of the male passed away useless, along with the menstrual fluid, which was the *resolution* of the vascular action thus rendered useless, or, as he quaintly terms it, "disappointed." Every farmer's wife knows a similar fact in hens, which constantly lay eggs ("pullet's eggs," as they are called,) without the access of the male. These eggs are

tried this: indeed, in placental cases, he who takes the earliest period in which it is possible to deliver, will be the safest practitioner, and we rarely could venture to do otherwise. A second mark is the impossibility of producing *ballottement*, which M. Gendrin found in three examples; he, however, does not assign this as positive. We know of another instance corroborative of this diagnostic symptom. An eminent practitioner, now dead, being consulted in a case of doubtful pregnancy, detected every sign but that known under the name of "ballottement:" though, therefore, he could be sure of an enlarged uterus, he could not say positively whether such enlargement was owing to the presence of a fœtus: he gave it as his opinion, that if the woman were pregnant, the placenta was interposed between the cervix uteri and the head of the child. This sagacious surmise eventually proved quite true. Before, however, the ballottement be taken as a test of placenta prævia, and before the practitioner should indulge himself or the friends of his patient, in the gloomy anticipations attendant on such examples, he should be aware that this bounding movement given to the fœtal body floating in liquid, can only be produced with certainty between the five and a half and seven and a half months of gestation. Even then there must also be that adjustment between the developed weight of the fœtus and the quantity of the liquor amnii, that the former shall be so nearly of the same specific gravity as the latter, as to be readily made to ascend and descend. If this proportion be not exact, and the fœtus be too heavy, it cannot be moved; and if too light, it will not descend: in either case the ballottement is imperfect or null. The stethoscope gives, we think, in placenta cases, a very doubtful diagnosis. In Dr. West's very neat translation of the younger Naegele's work on Obstetric Auscultation, it is asserted that in placenta prævia the the murmur is heard loudest over the pubes. This sign can but be considered as an adjunct to others: it is very deceptive by itself.

The history of the case is, however, the most valuable diagnostic element. "Flooding, without pain, at decreasing intervals prior to labour, and flooding coincident with uterine pain, in labour," will be sufficient grounds for the strongest suspicion.

British and Foreign Medical Review, July, 1840, *p.* 92.

63.—CASE OF EXTIRPATION OF THE UTERUS.

By M. Luytgaerens, of Zele.

[In which a large fleshy polypus was found to be attached to the fundus of the uterus, and which by its weight had caused a complete prolapsus of that organ. It was about the size of the fist. It was believed that the uterus itself was reversed. Hectic fever had already come on, and the patient was evidently sinking under the disease. The tumour was seized with the double forceps of Museux: the whole mass was then drawn beyond the external organs of generation, and being held fixed in this position, was extirpated by means of a strong pair of curved scissors. The woman did well.]

Edinburgh Medical and Surgical Journal, July, 1840, *p.* 261.

64.—PREMATURE LABOUR ARTIFICIALLY INDUCED IN A DWARF.

By M. Paul Dubois.

[M. Dubois had attended this patient in a former labour, and had delivered with the greatest difficulty, there being only a space of three inches from the pubes to the sacrum. When she became pregnant a second time, he attempted at about the end of eight months, to bring on labour, in the following way:]

At half-past nine in the morning, a common speculum being passed into the vagina, a piece of prepared sponge, about an inch and a half long, and cone-shaped, with a base from six to eight lines in diameter, was introduced by means of a long pair of forceps into the os uteri. It was fixed in its place by a second larger piece, and threads were adapted to both, so that they might be drawn out as soon as it was necessary. The patient was scarcely placed in her bed again before she felt some slight pains; forty grains of ergot of rye were almost directly after administered in doses of five grains every ten minutes; and during its administration the pains became gradually stronger and longer, and from eleven to twelve o'clock followed each other very rapidly and were well sustained.

British and Foreign Medical Review, July, 1840, *p.* 273.

[The pains, however, subsided and again commenced. The sponge was withdrawn, the membranes ruptured, and the labour afterwards advanced properly, and she was safely delivered.]

65.—INCISION OF THE OS UTERI IN CASES OF INCARCERATED PLACENTA.

By R. F. Power, Esq. Surgeon to the Coombe Lying-In Hospital.

It sometimes happens that the placenta is separated from the uterine parietes, but is confined within its cavity, in consequence of the os being *firmly and rigidly contracted*. This state is what is termed *incarcerated* placenta, and differs from the ordinary forms of irregular contraction of the uterus, in the contraction being more limited to the os and cervix.

The result of these cases is most generally fatal, the patient dying from the effects of a typhoid fever, probably excited by the putrescent mass retained in the system. When a portion of the placenta only is retained, a purulent discharge consequent upon inflammation is sometimes secreted, by the living membrane of the uterus, and by which the particles of the intruding body are carried off. It is also recorded that the placenta has been altogether removed by absorption; such cases are, however, extremely rare, and are essentially different from those now under consideration, in which the general termination is death.

I beg to be understood as referring only to instances in which too rigid contraction is limited to the *os*, and perhaps a portion of the cervix, a state which is readily discernible, and two examples of which, as before mentioned, came under my own observation. In such, *after all the ordinary means have been tried in vain*, and death seems certain, as a last resource, before the powers of life were too far exhausted, would this operation be admissible?

Mr. Power gives the following directions for the performance of this operation. The patient should be placed on her left side, close to the edge of the bed, as in the ordinary obstetric position, the forefinger of the left hand should then be carried to that part of the os, or cervix intended to be cut, and a probe-pointed knife or bistoury conveyed cautiously along the finger in the vagina to the point mentioned, at which the os or cervix may be divided. This is done by gently insinuating the point of the instrument within the os, and pressing its cutting edge againmst the rim on each side, in the direction in which it is intended to be incised, the parts will give way readily before it: and then cautiously giving the blade a withdrawing motion, the openings may be enlarged as much as may be deemed advisable. The bladder should be previously emptied, and if the incision be brought forwards great care should be taken to avoid its neck. The liquor amnii will escape after the first incision, and if the uterus act, the case may then be left to nature.

Dublin Journal of Medical Science, Sept., 1839, *and American Journal of Medical Science, May*, 1840, *p.* 237.

ANATOMY AND PHYSIOLOGY.

66.—ON THE STRUCTURE OF THE HUMAN PLACENTA, ARD ITS CONNEXION WITH THE UTERUS.

By W. Bloxam, Esq., M.R.C.S., Surgeon to Queen Adelaide's Lying-in-Hospital, and Lecturer on Midwifery.

[If the placenta be examined soon after its separation from the uterine surface, very minute vessels are perceived, varying from six to eight lines in length. When the uterus and placenta are examined together, these vessels are seen to pass from the former to the latter. They are known as the short curling arteries of Hunter, and are for the purpose of entering the placenta for the nourishment of the child.

It seems that no injection has yet been satisfactorily seen to reach the vessels of the cord from these uterine arteries, and it may, therefore, be supposed that no actual communication exists, but, "on observing the distribution of the umbilical vein at its extremities, it is found that its divisions are extremely minute, and in contact with the branches of the uterine arteries, ramifying also in the spongy tissue of the placenta." Mr. Bloxam makes other interesting observations on this subject, and sums up his opinions by the following conclusions:]

Firstly. That the blood enters the placenta through the short curling arteries of Hunter; and that although their size is insignificant compared with the venous system of the uterus, yet their relative number being greater, a full supply of blood is insured to the organ; whilst by the smallness of their calibre, they prevent the maternal circulation from expending its full momentum on the system of the child, under the accidental shocks, physical and mental, to which the mother is daily liable.

Secondly. That these vessels ramify on the spongy tissue of the placenta, and are there in apposition with the extremities of the umbilical veins.

Thirdly. That it is highly probable, that some of the properties of the maternal blood pass into the circulation of the fœtus by this means, and having fulfilled its functions in the fœtal economy, the residue is returned to the placenta by the umbilical arteries.

Fourthly. That from the free terminations of the umbilical arteries it transudes into the interstitial structure of the placenta; which, it may be remembered, is cōntinous with the semilunar apertures on its uterine surface.

Fifthly. That these apertures are applied to the openings on the internal surface of the uterus, and furnish a channel by which the blood, or its principles, are restored to the system of the mother.

As far as I am aware, there is no evidence of direct communication between the fœtus and its parent, furnished by the researches of comparative anatomists. Mercury, however, has been found in the vessels of the fœtus after having been injected from the uterus. Here, perhaps, the weight of the substance employed may have conduced to the result.

[He concludes his paper with the following remarks:]

With regard to the precise process which the blood undergoes in its accommodation to the necessities of the fœtus, we have no data to guide us; it may be a secretory process, or merely an exercise of those peculiar properties of the vascular system known as endosmose and exosmose.

I cannot conclude this paper without a brief observation on the mechanical arrangement of the uterine orifices for the prevention of hæmorrhage.

In regarding the immense size of the apertures of the venous sinuses, one feels a degree of astonishment that hæmorrhage is not more frequent, and more fatal, but when it is remembered that the essential property of the uterine fibre, at the full term of gestation, is that of contractility, and that by the exercise of this property the orifices of the deeper seated sinuses must be closed, by the more internal layer of muscular fibres, inasmuch as these apertures are not placed on the same meridian, our surprise ceases.

It is probable, that, independently of this mechanical arrangement, the flow of blood from the more superficial openings may be arrested by the formation of coagula, a process for which the flocculent structure of the decidua seems highly favourable.

Medico-Chirurgical Transactions, vol. 23, second series, vol. 5, p. 224—236.

[The following article by Dr. Knox also refers to this subject:]

67.—ON THE PLACENTAL TUFTS DESCRIBED BY WEBER.

By Dr. Knox, Edinburgh.

[This paper of Dr. Knox is confirmatory of the views of Weber respecting some parts of the anatomy of the uterus and placenta. He had long made up his mind]

First, that minute vessels containing coloured blood do really at all times pass from the uterus to the placenta, or *vice versa*, but that these vessels had never been fairly traced to their origins; and secondly, that the notion entertained by many that the uterine veins actually enter the substance of the placenta, or at all events reach its surface, together with that other idea that they terminate or commence by open mouths on the inner surface of the uterus, and that they there take up the blood poured into some intermediate cavities, or forced into them by the placenta through the placento-uterine decidua, was a statement at variance with every thing he had seen of these textures, and with all that he believed to be sound in anatomy and physiology.

[Dr. Knox proceeds further on to state:]

The first opportunity I had afforded me of examining the impregnated uterus, with the placenta adhering and undisturbed, was not a favourable one; but it satisfied me of this, that minute vessels of some kind or other do pass from the placenta to the uterus, and that the mode of the commencement of the uterine veins or sinuses on that surface of the uterus to which the placenta adheres had not been fairly described.

[Dr. John Reid furnished Dr. Knox with a large portion of the uterus with the placenta adhering, of a person who had died of an acute disease, and undelivered; and on this case he makes the following interesting remarks:]

The whole of the structures to be examined were placed, when I first saw them, under clear spirits, and several sections having been made already

through and through all the textures, quite into the cavity of the uterus, the examination was begun upon the margin of one of these sections.

On carefully pushing away the placentary mass from the uterus, several textures came into view: to take these in the order they were first looked at I shall commence with the surface of the placenta; I mean, of course, that surface which adheres *mediately* to the uterus. In the structure of the placenta adjoining this surface I could observe nothing more than what I had uniformly previously noticed, viz., minute vessels dividing and subdividing until they were just perceptible under the single lens I used. That these were arteries and veins there could be no doubt, since any separate bundle might be traced backwards to the large vessels from which they came. In respect to any placental cells or cavities, or large placental sinuses, or decidual spaces, or placental spaces, I may as well say at once, that no such structures were ever seen by me, and that I question, as I always did, the existence of such cavities or spaces.

Having traced certain minute branches of these placenta vessels to that surface of the membrane interposed between the placenta and uterus (usually called decidua, but obscure in its real nature,) the union of this membrane to the surface of the placenta was found to be comparatively firm, whilst its uterine surface adhered so laxly to the uterus, that it might be pushed from it to a considerable distance without destroying the anatomy of the intermediate textures or organs, owing to their natural elasticity. Being fully convinced, as I had been for many years, that to unravel the anatomy of these textures was to discover probably the whole secret of the mode of connexion between the human fœtus and its parent, I dissected and observed these intermediate textures with the greatest care. To state, in some sort of order what occurred at this point of the inquiry, I shall commence by observing that the minute vessels I had seen in the substance of the placenta passed almost directly through the interposed membrane, or decidua, in numerous bundles, being bound at the same time to the edges of the apertures, through which they passed by a delicate but firm membrane derived from that surface of the decidua which faces the placenta itself. Having passed through it, some of these vessels were observed still to contain a dark coloured fluid, which I naturally thought must be blood. So soon as these bundles of vessels had passed fairly through the decidua, they proceeded towards the inner surface of the uterus, enclosed, as it appeared to me, in funnel-shaped tubes, formed of a membrane connected as well with the inner surface of the uterus as with the uterine surface of the decidua. This membrane resembled a serous membrane, but is probably merely a cellular tissue condensed; extremely delicate, semi-transparent, and not unlike the arachnoid. Many other funnel-shaped portions or tubes had already been torn, so as to expose the placental tufts of vessels, and I tore through one or two of these tubes so as to be sure that they partially enclosed the tufts. It now became evident that the placental tufts did not terminate in these funnel-shaped tubes, but proceeding onwards, adhered apparently by some means or other to the surface of the uterus itself: it was moreover now evident, that, to ascertain the mode of adhesion of the tufts to the uterus, was the desideratum. Tracing, therefore, with every possible care, a bundle or tuft of vessels, quite up to the surface of the uterus, it was found suddenly to disappear, plunging into an orifice leading directly into one of the venous sinuses of the uterus. In this sinus or cavity of the placental tufts floated, extending a considerable way into the sinus, and having distinct terminations, that is, not uniting or anastomosing, so far as could be observed, with any other system of vessels. I now reversed the dissection: an uterine sinus was laid open more on that aspect which faced the substance of the uterus: it now seemed to me that the orifices by which the placental tufts had penetrated into the uterine sinuses were in no sense either the commencement or ter-

mination of the uterine veins, but merely lateral openings in the walls of the sinus; and that the peculiar pen-shaped orifices, described by many anatomists as seen on that surface of the impregnated uterus from which the placenta had been detached, and which had been declared to be the commencement of the uterine veins, shut up by the decidua so long as it is present, were appearances occasioned merely by an incautious dissection—a tearing away, in fact, of the placental tufts of the membrane which connects the tufts to the orifices themselves, and of a portion of the delicate inner wall of the sinus itself.

I now observed that the placental tufts, on entering the sinuses by the orifices I have just described, received a covering from the inner membrane of the sinus, reflected upon the tuft precisely around the orifice. Neither the time nor light permitted my observing whether these tufts were altogether loose within the sinuses, or had adhering points connected with the wall of the sinus: and in respect to one of the tufts, it did appear to me to anastomose with another tuft which had entered by a separate orifice. The tufts themselves, in so far as I could make out without the aid of the microscope, seemed composed of longitudinal striæ, as if the vessels lay longitudinally to each other, and terminated by rounded extremities.

Medical Gazette, Oct. 30, 1840, *p.* 209.

[These views are confirmed by Weber, as given in Muller's Physiology, Part I., p. 249, under the head of "Absorption by Organic Attraction." As our columns will not admit of a full account of the following articles, we can only just refer the reader to them, recommending him to refer to the original articles.]

68.—ON THE TORULA CEREVISIÆ, OR YEAST PLANT.

[The microscope enables us to perceive that yeast consists principally of a number of minute disconnected vesicles. These possess a dormant vitality for almost any length of time. When placed in a saccharine solution, they commence vegetation actively, provided the temperature be sufficiently high.]

If a fluid in a state of fermentation be examined at short intervals, it is observed that each vesicle puts forth one or more little prolongations or buds which in time become new vesicles like their parents; these again perform the same process, so that within a few hours the single vesicles develope themselves into groups of four, five, or six. This is not the only way, however, in which they multiply; sometimes the vesicles are observed to burst, and to emit their contents; and new individuals originate from the germs thus liberated.

All fungi appear to have, in a greater or less degree, the power of hastening the decomposition of the organic substances on which they grow, for the purpose, it would seem, of thus procuring for themselves the supply of carbon which other plants derive from the atmosphere. The common *mould*, for example, destroys the palatability of sweet preserves; and the *dry-rot* causes the decay of the timber it infests. Like the rest of its tribe, the simple but important plant we have just described (which has received the appellation of *torula cerevisiæ*) decomposes the organic matter in which it developes itself; and it carries a step further the process which the conversion of the barley into malt by incipient germination had already commenced. This had changed the fecula of the seed into sugar, and an equivalent of carbon was thus liberated. Another equivalent is now abstracted for the use of the fungus, and the sugar is converted into alcohol.

In placing a mass of yeast into a fermentable solution, therefore, we sow the germs of myriads of fungi, by the developement of which that change is effected in the fluid which it is our object to produce.

British and Foreign Medical Review, April, 1840, *p.* 579.

69.—STRUCTURE OF THE TEETH.

By A. Nasmyth, Esq.

At the meeting of the British Association, held at Birmingham, on the 26th of August, 1839, a valuable paper was read by Mr. Nasmyth, on the structure of the pulp.

According to Mr. Nasmyth, the internal structure of the pulp generally presents a remarkable number of minute cells in a vesicular form, which constitute the principal portion of its bulk. These vesicles vary in size, from the smallest perceptible microscopic appearance, probably the one-ten thousandth part of an inch in diameter to one eighth of an inch, and are evidently disposed in different layers throughout the body of the pulp. When thin layers of macerated pulp are examined, they present an irregular reticular appearance, and are found to be interspersed with granules. The parenchyma is traversed by vessels, of which the direction is generally vertical. Mr. Nasmyth has frequently been struck with the rapidity with which the pulp diminishes in volume, and with the extent of this diminution. Sometimes, indeed it would appear, in a short space of time to be almost annihilated; and this seems to take place more decidedly when the tooth has been in a healthy state, and more so in adult than in temporary teeth. This shrinking or almost total disappearance may be accounted for by a peculiar collapse or change in the congeries of cells of which the pulp is made up. With respect to their contents, these cells must evidently be filled with either air or fluid; but they are so extremely minute that Mr. Nasmyth has not yet been able to ascertain which.

When the pulp in a recent state is deprived of its covering of ivory, there may be observed on its surface innumerable detached cells, with central points. These cells form frequently a regular and complete coating, studded with points, on the surface of the pulp; and these points are placed at intervals corresponding in extent to those between the fibres of the perfectly formed tooth.

A comparison between the superincumbent perfect ivory and the formative surface of the pulp beneath, is always easy, because portions of the former at an early stage, at any rate, remain adherent to the latter, and fragments of the dental bone are found strewn over it; more especially in human teeth.

Against my theory, said Mr. Nasmyth, that the dental substance is the ossified portion of the pulp, the facility with which the one is separated from the other has been adduced, and he allowed the force of this objection; but, he observed, it is at any rate weakened by the circumstance that a portion of the pulp actually remains attached to the dental substance, and by the fact, that in half ossified ribs, for instance, the cartilage can be easily separated from the ossified portion, and it must be remembered that in the tooth the separation must be easy, in proportion to the difference between the consistence of the pulp and the ivory.

Medical Gazette, Jan. 3, 1840, *p.* 538.

[This is one of the most interesting subjects which has engaged the anatomist lately, and we strongly recommend the careful perusal of Mr. Nasmyth's valuable papers in the different journals.]

70.—GENERAL FACTS REGARDING THE STRUCTURE OF THE TEETH.

By Professor Owen, F.R.S., &c.

The most important *general facts* discovered and substantiated by Professor Owen regarding the structure of the teeth, we believe to be the following:

1. That the teeth grow, like bone, by intussusception; that they are not extra-vascular structures, as Hunter, followed by Cuvier and many others, maintained; but that they are originally formed by the deposition of calcareous matter in cellular tissue, by a process bearing a general analogy to that of ossification.

2. That the microscopic examination of the teeth reveals correspondences and differences in their structure in the various groups of vertebrated animals, so constant and easily recognised that from the smallest fragment of a fossil as well as recent tooth, not only the class and order but even the family, and in some instances the nearest allied genus of the animal to which the tooth belonged, may be predicated with certainty.

The first of these discoveries was made by observation of the development of the teeth in the fœtal shark, in 1838. Mr. Owen remarks that in these, as in many other fishes, we have an exemplification on a large scale of the earliest or papillary stage of dental development in the higher classes of animals. It is not succeeded by either a follicular or an eruptive stage; since the formative papillæ are never inclosed, and consequently never break forth. The unossified pulps, examined with a high power, consist of semi-opaque granules or cells, suspended in a clear *matrix*; and the whole is inclosed in a tough transparent membrane which forms the outer surface of the pulp. The formation of the tooth commences by the deposition of earthy particles in the latter, which thus becomes the enamel-like polished coating of the tooth; and the process of calcification gradually extends from without inwards, the pulpy substance being actually converted into solid *dentine*; and not giving place to excreted layers of it, as commonly supposed.

British and Foreign Medical Review, July 1840, *p.* 209.

71.—ON THE STRUCTURE OF THE MUCOUS MEMBRANE OF THE STOMACH.

By R. B. Todd, M.D., F.R.S., Professor of Physiology, King's College, London.

When a portion of the mucous membrane of a true digestive stomach is examined stretched upon a plane surface under water, we observe it to exhibit a multitude of small cells more or less circular in form. These cells are present over the whole surface, where a thick epithelium visible to the naked eye does not exist, and their presence may be considered to be characteristic of the true digestive surface, as contra-distinguished from that of a simple macerating cavity. When the mucous has been well cleared away, we can see to the floor of each cell, which exhibits from three to five perforations, often rendered distinct by being filled with the white mucous secretion. The cells are separated from each other by partition-like elevations of the membrane, which vary in depth, and sometimes even form pointed processes, mistaken by some anatomists for villi, which they really do resemble when examined on an oblique section. The diameter of the cells is 1-180th inch to 1-250th inch: it varies, however, in the different regions, and is always largest near the pylorus.

When thin sections of the mucous membrane, cut vertically to the surface, are placed under the microscope, they are seen to be composed of a number of tubuli closely applied to each other side by side, their blind extremities being in contact with the submucous tissue, and their free extremities opening into the bottom of the cells.

British and Foreign Medical Review, April, 1840, *p.* 565.

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THE

RETROSPECT

OF

PRACTICAL MEDICINE AND SURGERY,

BEING

A Half-yearly Journal,

CONTAINING A RETROSPECTIVE VIEW OF EVERY DISCOVERY AND PRACTICAL IMPROVEMENT IN THE MEDICAL SCIENCES.

Edited by

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NO. III.....JANUARY TO JULY.

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THE Editor begs to return his unfeigned thanks to the Profession for the liberal support which has hitherto been given him, and to assure the different members of it, that, although the labour is not easy, the work requiring constant reading throughout the year, he does it with sincere pleasure, inasmuch as he perceives more than ever the utility of the undertaking and the desideratum which has thus been in some measure supplied. The call for a Second Edition of No. I. cannot but be highly gratifying to him. This will probably not be rendered necessary with respect to the future numbers on account of the increased number of copies which have been printed.

The Editor begs to announce that the future numbers of the work will embrace not only the English and American Journals, but also the most celebrated of the French and German Periodicals, which will be read over with the greatest care, and the practical matter extracted and condensed as has hitherto been done with respect to the English and American works. At the same time this will necessarily entail a small additional expense; but the Editor hopes that, by the rapidly increasing sale of the work, the price need not be increased.

The Editor returns his best thanks to the different Editors of the British and American Journals for their kindness in throwing no obstacles in his way; on the other hand, almost every one has spoken with encouragement of the undertaking, and of the spirit in which it is conducted.

In conclusion, the Editor begs to say that almost everything which has appeared in the Medical Journals for this last half year, and which is really useful to the busy practitioner, has been here condensed. All controversial points have been, and will continue to be, avoided as much as possible, and only that which is undoubtedly useful and excellent will be advanced.

Park Square, Leeds, June, 1841.

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PRACTICAL MEDICINE.

PRACTICAL MEDICINE.

&c. &c.

Art. 1.—TREATMENT OF EPILEPSY.

By Dr. Babington, F.R.S., &c.

[Dr. Babington states it as his opinion that many cases of epilepsy depend not on structural, but on functional change, and admit of cure. After relating several interesting cases accompanied with physiological observations, he proceeds to describe his mode of treatment. It will be seen that sulphate of zinc, as a tonic, is one of his chief remedies: and when he states that the nitrate of silver is perhaps to be preferred, but cannot be persevered in on account of its action on the skin: he might have referred to the *oxide* of silver, which has all the effects of nitrate, and can be given for any length of time without its bad effects, at least, if we may place reliance on the observations of Mr. Lane, which will be found at at length in the second number of our "Retrospect," and to which we advise the reader to refer, as placing before him one of our most valuable remedies, in a preparation which need not be feared. Dr. Babington says, with respect to the treatment of epilepsy:]

Where the irritation, which I suppose to be the proximate cause of epilepsy, is complicated with, and remotely dependent on organic change of structure, we cannot of course expect that treatment, of whatever kind, will either effect a cure of the disease, or throw any light upon its cause. Again: where it is combined with a state of plethora—never occurring but when the person is in a horizontal position, or after a full meal, and attacking those whose habit is gross and circulation forcible, means, the opposite of those which would be adopted to remove the proximate cause, may be needed. Bloodletting may be necessary, as well as active evacuants, and an antiphlogistic line of treatment; but, with these exceptions, it is my belief that the same class of remedies which is best calculated to give tone to the system under tic doloreux, and other spasmodic states of the nerves of motion and sensation dependent on nervous irritation, is also most applicable to this disease; and that the various preparations of bark, of iron, of arsenic, of silver, or of zinc, are those from the administration of which we shall derive the greatest advantage. Of the sulphate of zinc, I have lately made more frequent use than of any of the rest; and as it has proved efficacious in some cases, I shall conclude by an allusion to one or two of the most striking. Like all other remedies, it will often fail: but whether useful or not, it has the merit of being a safe remedy, and that when continued for a longer period, and in very much larger doses than is usually supposed. Those large doses seem sometimes, though by no means always, essential to its efficacy; and the method of reaching them, without producing nausea, is by a gradual increase, as in the case of emetic tartar. Thus Frances D——, to whom I have more than once alluded, was enabled to take thirty-six grains, three times a day, for sev-

eral weeks, without its producing any sickness or other untoward effect This, in her case, was the maximum tonic dose; for when she took forty-two grains, which she continued to do for one week, she lost her appetite, and felt much sickness.

[In another case he gave the zinc till 3ss. was taken three times a day, and was then diminished to ten grains to a dose. The fits entirely disappeared from the commencement of the treatment. In other cases he gave two grains three times a day with similar success. He then says:]

It is a general belief, that sulphate of zinc excites less nausea in the form of pill than in a liquid state. I find the difference to be scarcely appreciable; and as it is often desirable to increase the dose to an extent which would make it inconvenient in the form of pills, I frequently prescribe it in solution. It is soluble in two parts and a half of cold water; so that the dose is not inconveniently large, whatever number of grains it may be desirable to administer. I have frequently seen epileptic patients benefitted by other tonics; as, for instance, by preparations of iron, by nitrate of silver, and by powdered mug-wort-root. In so intractable a disease we are often obliged to vary our remedy, the principle of treatment remaining the same; yet of all those which I have named, and many more of the same class, I give the preference, on the whole, to the sulphate of zinc. The nitrate of silver is equally, if not more efficacious; but its well-known property of tinging the skin has always made me averse to its employment.

Guy's Hospital Reports, April 1, 1841, *p.* 17—19.

2.—ELECTRICITY IN VARIOUS DISEASES.

By Dr. Golding Bird, A.M., F.L.S., &c., &c.

["Electricity and galvanism are but different names for the same agent." In the former, the matter being in small quantity, but in a state of "high tension or elasticity," "whilst in that of the galvanic battery we obtain it in enormous quantities, but in a state of low tension." Dr. Bird gives a most lucid explanation of the remedial effects of this active agent in the last number of Guy's Hospital Reports, which we will endeavour to condense. He says:]

When a person is placed on a stool with glass or other nonconducting legs, and connected with the prime conductor of an electrifying machine in action, his whole surface becomes, by induction, powerfully electro-positive; and combination, by silent discharge, is constantly occurring, by absorption of negative electricity from the air: this may be seen to take place luminously in the dark, especially about the hair, eye-lashes, fingers, &c. During this luminous discharge, heat is evolved, the circulation becomes quickened, the secretions generally become more active, and perspiration breaks out. A person thus situated is said to be in an *electric bath;* and it is by no means improbable that this might be frequently employed with advantage in certain affections in which the functions of the skin and mucous membranes are deficient. The evolution of heat during this silent discharge is sufficient to demonstrate the mode in which the physiological effects alluded to are produced.

If, whilst a person is connected with the prime conductor, and his whole surface is highly positive, or exposed to the *electric bath*, any conducting body connected with the earth, as the hand or a metallic ball, be brought near him, it becomes highly negative by induction; and when sufficiently near, the negative electricity combines with the positive of the person's body, produc-

ing a vivid flash of light and a snapping noise, forming the disruptive discharge, or what is called *the electric spark*.

When the influence of a large quantity of electricity is deemed advisable, we have recourse to that form denominated galvanic or voltaic electricity. This is readily excited by various forms of chemical action. The apparatus I prefer is that described in a paper I published some years ago, in the London and Edinburgh Philosophical Magazine, Nov. 1837; and may be briefly described thus:—A bundle of soft iron-wire is placed in the centre of a wooden reel or bobbin; around which is wound a quantity of stout insulated copper-wire, having its two ends free, for the purpose of being connected with a single pair of plates of copper and zinc exposed to chemical action; over this is wound about 1300 feet of very thin insulated copper-wire. The two ends of this coil are furnished with directors, for the purpose of being applied to any portion of the body or limbs required. If, then, one end of the inner coil be removed from the battery, the constraining inductive force previously exerted on the thin coil is removed, and all the electricity naturally present in it is discharged through the portion of the body or limb touched by the director, producing an electric shock. By adapting a piece of apparatus for mechanically breathing contact with the simple battery employed, a series of shocks can be sent through a limb, either very slowly and mildly, or at the rate of two thousand or more in a minute; producing such a rapid succession of discharges, as to give rise to a sensation amounting to insufferable torture.

[Dr. Bird then relates the effects of this agent in Chorea, paralysis, and amenorrhœa. And first, with respect to its effects in Chorea; he gives a list of 36 cases in nearly all of which it was remarkably successful; the only remedy combined in the treatment being purgatives. In most of these cases other remedial treatment had been previously adopted in the hospital, and were sent to the *electrical ward* as a last resource. In every case he "confined the treatment to sparks taken in the course of the spinal column every alternate day for about five minutes each time, or until the papular eruption made its appearance." With respect to passing the shocks along the affected limbs in chorea, it is particularly necessary to notice Dr. Bird's words. He says:]

I have never seen any good effect to result, in cases of chorea, from the transmission of electric shocks along the affected limbs; on the contrary, in every instance the involuntary movements have been increased, often to an alarming extent; and if employed when the patient was convalescent, it has invariably aggravated every symptom, and often rendered the patient as bad as when first admitted under treatment.

[The author then proceeds to say:]

It may now be asked, in what light is electricity to be regarded, in the treatment of chorea, and certain involuntary motions of the voluntary muscles analogous to those occurring in this disease? From the results of the cases treated in Guy's Hospital, no doubt can remain, on the mind of any one, that electricity really exerts a decided, not to say specific influence on these affections: and although, on its first application, all the symptoms often become increased, from, probably, the timidity of the patient, and the novel character of the remedy, yet where it has been persevered in, in thirty-five of the thirty-six reported cases, it has either completely cured, or greatly relieved the patient: the case in which it failed, the 29th in the Table, would scarcely be regarded as a fair one, as there was but little doubt that disease of the membranes of the spinal cord existed. As I feel extremely unwilling to recognise the existence of more specific agents than necessary, I would venture to suggest that electric sparks, when drawn from the spine, may act

by the irritation they produce: and this appears countenanced by the fact, that the rapidity with which the patient's symptoms are relieved is nearly in a ratio with the facility with which the peculiar papular eruption makes its appearance. If future experience should countenance this view, the remarkable influences exerted by electricity in the treatment of chorea may be referred to the principle of counter-irritation. It may next be inquired, whether, in the treatment of chorea, we ought to trust to electricity alone? In answer to this, it may be stated, that I have repeatedly treated severe cases of this disease successfully with this agent, without the administration of any medicine at all; and in the majority of the thirty-six cases in the table, no internal medicine, except an occasional purgative, was administered during the electrical treatment. Still, it is obvious, that, in many cases, the disease is kept up and excited by the irritation produced by some deranged function; and this of course it will become the duty of the physician to set right, before or during the application of the electricity. The case of Eliza Raven affords an interesting illustration of this: here the chorea either depended, *ab initio*, upon the non-performance of the uterine functions, or was kept up by it; and, accordingly, a few electric shocks through the pelvis, by restoring the deficient menstrual discharge, at once cured the patient.

[We next notice his observations on cases of *paralysis*.]

Of these cases it may be generally remarked, that those in which the paralysis, whether of sensation or motion, or both, depended upon exposure to cold or rheumatism, upon some functional affection often of a local character, or upon the impression produced by effusion in some part of the cerebro-spinal centre which had become absorbed under the influence of previous treatment, the result of the application of electricity was most successful; whilst in those cases in which the paralysis depended upon some persistent structural lesion, whether produced by accident or otherwise, I never saw the slightest benefit result.

[The first cases are those of "*dropped hands*."]

In the treatment of these cases, electricity was generally employed in the form of sparks drawn from the upper part of the spine, so as to exert its influence over the origin of the spinal nerves forming the axillary plexus.

In cases where the general health was not much deranged, the use of electricity over the spine, and drawing a few sparks, occasionally from the paralysed extensor muscles of the wrist and hand, with the exhibition of an occasional laxative, was generally remarkably successful. But in those instances in which the patient was of cachectic habit, and the constitution deranged by previous or existing functional derangement of the digestive organs in particular, electricity was of no service, or at most, of doubtful efficacy, until the deranged functions had been relieved by the remedial measures employed.

In cases of the dropped hands of painters, the conditions before mentioned being borne in mind, the electric sparks drawn from the region of the cervical and dorsal vertebræ are generally efficacious in at least aiding, if not effecting a recovery. I have generally, also, directed them to be drawn from the paralysed parts; and, in recent cases, small shocks, transmitted along the course of the affected nerves, have considerably accelerated convalescence: but in chronic cases I have repeatedly seen a cure effected by drawing sparks from the spine, on alternate days, for weeks, after shocks had been passed along the paralysed parts in vain.

RHEUMATIC PARALYSIS.

The common history of these cases is, that a person after exposure to damp and cold, and sudden alternations of temperature, suffers from a slight febrile attack, followed by inability to move one or other of the limbs, and often a

single leg or arm, if either of these have been exposed to the influence of a draught or current of air. In general, sensation remains either slightly or not at all impaired, but the paralysis of motion is generally tolerably perfect. This state may continue for an almost indefinite period; and at length, from want of exercise, the muscles of the affected limb become atrophed, and the chance of relief from treatment of any kind becomes proportionably diminished. In cases of this kind, before this wasting has ocurred, the influence of electricity is very remarkable, frequently restoring power to the paralysed muscles in a very short time.

Several cases of paralysis of a single limb, or part of one, from local injury, have been submitted to the action of electricity.

In the few instances of local paralysis that have fallen under my notice, the power of motion has been alone lost, sensation having continued tolerably perfect; and the local application of the current from the electro-magnetic machine has been generally successful; in addition to this local treatment, the general health of the patient has been attended to, by the administration of appropriate medicines, and vigilant attention to diet. Every one must be aware of the occurrence of cases in which paralysis, generally affecting one side of the body, comes on as a mere effect of congestion or of effusion, which, under the action of depletion and mercury, can be completely removed; and yet the effect of such morbid action, the paralysis itself remains. Cases of this kind will generally do well by time, aided by the application of friction, baths, exercise, &c.; yet convalescence will be extremely protracted. Here the passage of a few electric shocks through the limbs, so as to arouse, as it were, the dormant functions of the nerves, will at once frequently restore as complete power over the affected limb as the state of the muscles, weaked by previous disease, will admit of. When the paralysis has been of longer date, or the cause producing it of a more persistent character, it will be found necessary to continue the application of the electric shocks for a longer period of time. In these cases, it will generally be found more convenient to allow a rapid succession of shocks to pass through the paralysed limbs, by means of the interrupted current from the electro-magnetic machine. Indeed, so far as my experience has extended, I am far more inclined to place reliance on the current of electricity yielded by this machine, than by that obtained by means of friction; as we have at our command an enormous quantity of electricity, of high tension: added to which, its application is much more convenient, and requires less tact than when the common electric machine is employed. The truth of the statement here made, of the class of cases of paralysis in which electricity may be employed with every probability of success, is supported by what we see in its employment in the local paralysis following the application of mechanical injury to a limb: for wherever the nervous trunks supplying a limb are lacerated, or otherwise mechanically injured, we can hold out no hope of relief from the application of electricity, or any other remedy; whilst in those in which, from the shock of the blow applied to the limb, the nervous trunks had been only functionally paralysed, their structure remaining unaffected, the passage of the electric current affected a complete restoration of the previously deficient nervous power of the limb.

In accordance with this reasoning, we find those anomalous forms of paralysis connected with Hysteria generally yield to the application of a few electric shocks. I have, indeed, repeatedly seen hysteric paraplegia yield so rapidly to the effect of an electric shock, as strongly to impress those who were watching the case with the conviction that the whole disease was simulated.

AMENORRHŒA.

Scarcely any cases have been submitted to electrical treatment in which its sanatory influence has been so strongly marked as in those in which the

menstrual function was deficient. The remarks previously made regarding the electrical treatment of chorea and paralysis alike apply to amenorrhœa; so long as the patient is seriously out of health, as when marked symptoms of chlorosis are present, scarcely the slightest benefit has ever resulted from the employment of electricity: in fact, as this agent can in these cases be regarded but as a local stimulant applied to an organ whose function is deficient, we could hardly expect the menstrual discharge to appear, when, from the deranged state of the general health, the womb is not in a state to supply the deficient secretion. The rule for insuring success in the great mass of cases of amenorrhœa is sufficiently simple:—improve the general health by exercise and tonics; remove the accumulations often present in the bowels by appropriate purgatives; and then a few electric shocks, often a single one, will be sufficient to produce menstruation, and at once to restore the previously deficient function. It is for want of attending to this rule that so many cases have been said to have been unsuccessfully treated by electricity; and to this statement I must oppose all the experience acquired from the cases treated in the electrical Room of Guy's Hospital; for, with but one or two exceptions, every case in which the general health was not too severely deranged, as by chlorosis, has been successful; of course not including those who, from timidity or other causes, never appeared but once or twice at the hospital.

The mode of applying the electric shocks is the following:—Let the patient be placed on a chair or stool; press the brass knob of a director against the sacrum; and if the stays be loosened, so that only the linen intervenes between the latter and the knob, no further exposure is necessary. A second director, furnished with a chain connected with the outside of an electric jar, is passed by the female attendant under the patient's dress, and the knob pressed against the pubes. The jar is then charged; and its ball touched by a third director, connected with the one held against the sacrum by means of a chain. The shock thus passes through the patient's pelvis; and should be repeated ten or a dozen times. The jar employed should hold about a quart, and be about half charged.

In general, whenever the menstrual discharge has appeared under the influence of the electric treatment, I have directed the remedy to be intermitted as soon as the flow has been fairly established, and its use to be recommenced about a week before its expected return.

In amaurosis, the result of the trials were too conflicting to afford any satisfactory conclusions: in the majority of instances, it certainly did no good: in a very few it appeared to afford some relief; but in none did it effect anything like a cure. In various cases of deafness the results of the application of electricity were similar.

In chronic rheumatism, especially in sciatica and lumbago, a considerable alleviation of suffering was frequently effected by drawing sparks from the seat of the pain; but the cases submitted to treatment have not been as yet sufficiently numerous to warrant any general conclusions.

Electricity has never been of the slightest service in the treatment of convulsive affections in which the brain was involved, as in epilepsy; whilst, as already stated, in chorea, in which the brain is generally unaffected, the result of the application of electricity was most gratifying.

Guy's Hospital Reports, April, 1841, *p.* 84—120.

3.—ON THE LAWS WHICH REGULATE THE DEPOSITION OF TUBERCLE.

By Dr. Barlow, Physician to the Surrey Dispensary, &c.

[Although these remarks of Dr. Barlow in the last number of Guy's Hos-

pital Reports, of which he is one of the editors, are not strictly therapeutical, yet they are so excellent that we cannot help placing them before our readers. Dr. Barlow thinks we may lay it down as a rule but seldom deviated from in the attack and progress of disease, "*that any organ is most liable to become the seat of tuberculous deposit, when its vascular and functional activity bears the greatest ratio to that of the other organs of the body.*" This opinion is not agreed to by Dr. Stokes in his able work on "The Diseases of the Chest," nor by Dr. Carswell in his article, "Tubercle," in the Cyclopædia of Practical Medicine. Indeed, these gentlemen seem to be of quite a different opinion, and regard atrophy, or inactivity of vascular action, as strongly predisposing to tuberculous deposit. The practical reader, therefore, must judge for himself of the value of Dr. Barlow's views. The author first illustrates his opinion by what we observe in the progress of the animal economy towards perfection.]

Thus, in the new-born infant we are struck with the large size of the head, in proportion to the rest of the body; the abdomen holds a middle place in this respect; and the chest is the least developed of the three. As childhood advances, the trunk increases in a greater ratio than the head; but at this period the abdomen is much more developed than the chest; and it is not till youth, or early manhood, that the chest acquires its full size in proportion to the rest of the body. In nearly the same order do we find that tuberculous disease attacks these different regions. No one will, I think, deny that in infancy and early childhood the brain is more frequently the seat of this affection than at any other period of life; whilst in more advanced childhood, we find that tubercles evince a greater partiality for the abdominal viscera: but it is not till youth, or early manhood, that the lungs, which are nevertheless, in the aggregate, peculiarly obnoxious to tubercles, acquire their full liability to them.

The activity of the nutritive function in children seems to imply a corresponding activity of the absorbent system; and we find that hyperæmia of the absorbent glands is of frequent occurrence among children, and accordingly, they are peculiarly liable to tuberculous affections of these organs.

It is, however, to the lungs, the most frequent seat of tuberculous disease, that we are to look for the full elucidation of the laws which regulate its development. The different excretory organs are in a great measure co-adjutive and supplementary to each other; which is, I believe, particularly the case with respect to the lungs and the liver. This is strikingly shewn by the fact, that in the different classes of animals the liver increases in the same proportion as the respiration diminishes, having its maximum of development in fishes, its minimum in mammalia, and its mean amongst reptiles. Now the fœtus in utero, may, in this respect, be said nearly to resemble the fish; and accordingly we find that its liver is proportionally much larger than in extra-uterine life. Accordingly, tubercles in the lungs are exceedingly rare before birth; and it is highly probable, that when they do exist in these organs, they exist in the interlobular cellular tissue, in common with that of the rest of the body.

As childhood advances, and the muscles are more exercised and more developed, whilst the proportion of time spent in sleep is less, there is greater need for the exercise of the respiratory functions. Accordingly, it is not very uncommon to find tubercles in the lungs in the later periods of childhood and in early youth: at the same time it is to be observed, that we generally find them in a more advanced stage in other parts of the body. I have, myself, examined many children in whose lungs tubercles were found; but from what I have observed, I should say that it is much m re frequent to find children dying *with* pulmonary phthisis, than *of* pulmonary phthisis; the tu-

berculous disease being more advanced in some other part of the system, as the brain, the bronchial or mesenteric glands, the peritoneum, or the glands about Glisson's capsule.

[With respect to some of the external circumstances which appear to influence the development of tubercles, Dr. Barlow says:]

It appears that a high temperature, especially if it be combined with a damp atmosphere, has a tendency to produce an increase in the volume of the liver; as is seen in the frequent effect of a removal from this to the warm and humid atmosphere of India.

The reason of this change is, I think, this; that owing to the expansion of the air produced by an increased temperature, the actual quantity of oxygen contained in a given bulk of atmospheric air must be diminished, and, accordingly, the decarbonizing agency of the lungs must be impaired. The thirst produced by great heat must add to this result, by bringing a greater quantity of fluid into the portal circulation, from the greater amount of fluids taken into the stomach; and if the cutaneous perspiration be checked or impeded by an atmosphere loaded with moisture, we shall have an additional cause for the increased action of the liver in the diminution of the function of one of the auxiliary secreting organs.

It may indeed be said, and with truth, that the same changes are not so common with natives of warm climates: but it should be remembered, that there may be compensating circumstances, either in manner of life or the condition of other organs: and this is a point which here demands a moment's consideration. Now since the aliment of the carnivorous animal is more rich in azotized and hydrogenous substances than that of the herbivorous, these principles must be transmitted in greater abundance, by the vena portæ, to the liver in the former, than in the latter: and since it has been ascertained by M. Lafargue, that in the different orders of the mammalia the developement of the liver is in the direct ratio of the carnivorous instinct, and in the inverse ratio of the herbivorous, it follows that one office of the liver must be to separate these principles from the blood; whence it may be inferred, that besides being a co-adjutive or supplementary organ to the lungs, the liver separates from the blood of the vena portæ the excess of hydrogen and azote with which that blood is surcharged; and these substances, having a tendency to pass out of the system by the liver, must act as stimulants to that organ. So that if in addition to the stimulating effect upon the liver of a warm and humid climate, the inhabitant of that climate makes use of an animal diet with more or less of alcohol (a hydrocarbon,) we shall have the over-stimulated liver of the Anglo-Indian: but, on the other hand, if the diet consist principally or entirely of vegetable, and especially farinaceous substances, as is the case with the Hindoo, we shall have the effects of the climate counteracted in some measure by the nature of the food. In the hot and arid climate of Africa, and especially amongst the dark races which inhabit it, we have an important compensation, for the tendency of diminished respiratory function to produce over action of the liver, in the increased activity of the skin as a depurating organ, which not only exhales a larger proportion of water and carbonic acid, but also excretes an unctuous substance. Amongst these, animal food, though sparingly enjoyed, is not entirely abstained from, as is the case with the Hindoo.

The same line of reasoning would lead us to expect, in the temperate zones, and especially in the colder parts of them, a greater liability to over-action of the lungs; which would no doubt be productive of mischief, were it not counteracted by the use of a greater proportion of animal food. This not only proves a stimulus to the liver, but its azotized ingredients, being in part carried off by the kidneys, act as stimulants also to these important organs. And the same mode of reasoning may also be further extended to the

inhabitants of the circumpolar regions; where, upon the same hypothesis, we should expect that a diet consisting almost exclusively of animal substances would be found most suitable. And a strong argument in favour of the truth of the view which I have taken of the effect of climate upon the relative activity of the excreting organs, is, that nature has provided the inhabitants of these different climates with that kind of food which, according to this view, would be most conducive to health, and has, moreover, given them an appetite for it.

It appears, then, that increase of temperature, especially if combined with a humid atmosphere, must increase the action of the liver, and diminish that of the lungs; but that, if the air be drier, the lungs are still relieved, but a greater amount of depurative action is performed conjointly by the liver and the skin; and, conversely, that a depression of temperature must call the lungs into greater activity, by diminishing the functions of the former organs. It also follows, that, since in a warm climate the developement of the liver must have been favoured at the expense of that of the lungs, a change to a cold climate must call the latter into a state of over-activity; whilst the same effect must frequently occur amongst those who reside in climates subject to sudden variations of temperature.

And this is precisely what we observe in respect to phthisis; the inhabitants of cold climates are, *cæteris paribus*, far more liable to pulmonary phthisis than those of warm climates; whilst a climate subject to sudden changes of temperature seems still further to favour, the production of this disease: and a removal from a warm to a cold climate, is frequently found to produce it, not only in men, but also in the lower animals; as is seen in those brought from southern latitudes to the manageries of this country.

It follows, then, that those climates, and those changes of climate, which excite the lungs to the greatest functional activity are precisely those in which phthisis is most readily and frequently produced.

[Dr. Barlow offers an ingenious explanation of tubercles, oftener occurring and commencing at the upper parts of the lungs than in other parts. He says:]

It must happen, that those cells—in order to reach which the air has the least distance to traverse—must be the first, and therefore most constantly, inflated; and these cells occupy the upper and posterior portion of the lungs. But there is still another reason why this portion of the lungs must be most regularly inflated in ordinary respiration; namely, that they offer less resistance to the entrance of the air. One of the principal obstacles to the entrance of the air into the lungs in inspiration must be the pressure upon the cells, arising from the weight of the superincumbent lung; and this pressure must, when the trunk is in the erect posture, be the greatest near the diaphragm, and decrease as we approach the apex: so that, from this cause also there must be a greater facility for the inflation of the upper, than of the lower portions of the lungs.

The air which reaches the lower portion of the lungs must, from its longer transit through the air passages, become warmer, and consequently more rarefied, than that which fills the cells of the upper portion of the lung; and must therefore, in proportion to its volume, contain a less quantity of oxygen, the proper stimulus of the lungs.

[The author finishes his interesting paper, by the following observations:]

The great principle which, in a therapeutical point of view, it seems to establish, is the importance, in the prophylactic treatment of phthisis, of keeping all the excreting organs in a state of moderate activity, and preventing an excessive performance of function by any. When, however, there appears reason to apprehend that undue excitement of the lungs exists, we must endeavour to relieve the functional excitement through the medium of the other excreting organs; and the hyperæmia, by moderate local depletion,

and the use of remedies likely to controul the action of the heart. The means of fulfilling these indications will readily suggest themselves to the experienced and reflecting practitioner: but as my great object in the present essay has been to establish a pathological principle, though one immediately applicable to therapeutics, I shall not now enter further into details, than to state, that in cases where I have observed a diminished resonance on percussion under the clavicle, with preternatural resonance of the voice in the same situation, occurring in connection with constitutional symptoms calculated to excite the apprehension of phthisis, especially when they presented themselves in a member of a strumous family, I have generally been in the habit of applying leeches or cupping-glasses, and afterwards occasional counter-irritants, and of exhibiting internally sulphate of quinine, in combination with digitalis, and some narcotic, which seems most applicable to the particular instance. So large a proportion of these cases, has been benefitted, that I am much inclined to think that in some the invasion of phthisis has been warded off. The object of the quinine has been to counteract that general debility of the system which seems associated with the tuberculous cachexia; and that of the digitalis to prevent hyperæmia of the lungs, by moderating the action of the heart.

Guy's Hospital Reports, April, 1841, *p.* 209—228.

4.—TINCT. FERRI SESQUICHLOR. (Tinctura Ferri Mur.) in discharges of Blood from the Urethra, &c.

By Charles Clay, Esq., Manchester.

[Mr. Clay takes a sensible view of these cases. He attributes the collection of blood in the bladder, which we occasionally meet with, not so often to disease of the bladder itself, as to disease of one or both kidneys. The small quantity of urine which is excreted in most of these cases, is strong presumptive evidence that the kidneys themselves are in fault. The injection of warm water into the bladder merely removes the coagula without curing the disease. The same observation applies to the injecting of saline solutions, such as salt, which, however ingenious in preventing the coagulation of the blood, which collects. does not act on the kidneys; and perhaps only stimulates those organs unnecessarily. Mr. Clay proceeds in his paper as follows:]

In all cases where great discharges of blood have taken place by the urethra, it is generally remarked that the quantity of urine is small; and this is a strong presumptive proof that the disease is seated in the secreting organs, and not in the bladder: under such circumstances we can hope for no advantage by local applications to the inner surface of the bladder; it must be evident, our only advantage is by constitutional treatment, assisted by local applications over the region of the kidneys. I have just discharged a case cured, illustrative of this subject. Mr. Wood, aged sixty, of Oldham-road, Manchester, sent for me in great haste; I found him unable to pass any urine—a teaspoonful, or at most, two, of blood coming away at every attempt; the bladder was distended, and the abdominal surface very tender. I passed the catheter; about six ounces of blood came away, considerable relief was given; the blood discharged was nearly pure, and destitute of urinal smell. As the quantity of blood discharged was but trifling, I proposed passing the catheter again next morning; in the mean time I ordered a warm fomentation to the abdomen, and gave the following:—

℞ Tincture of Muriate of Iron, ʒj.; Tincture of Opium, ℥iss.; Infusion of Iceland Moss; Infusion of Gentian, of each ℥iv. Let an ounce be taken every four hours.

On my visit next morning, I learned that little rest had been obtained, the desire to void had been frequent, but the character of the blood was much changed, very dark in colour, and watery; and the quantity through the night about twenty-six ounces. Finding no further use for the catheter, I ordered the mixture to be used as before. On the third day, all desire, except about twice in twenty-four hours, had left him. The discharge was now high-coloured urine, but not the slightest trace of blood. After continuing the use of the tinct. fer. mur. for about ten days, he gave it up, being quite free from any unpleasant symptoms. This case was remarkable, as being one that had existed for some years, and all hope of permanent relief was lost; it only forms one of many that I have relieved, or entirely cured, by the same means; occasionally I have obtained relief from blisters and tartar emetic plaster over the region of the kidneys; but except in cases, and of no great extent, I have not found them of permanent benefit; on the contrary, few cases have withstood the tinct. fer. mur. The number of cases I have seen relieved and cured by it, warrants the conclusion, that the disease is generally in the kidneys, and therefore must be attacked through the constitution. I cannot resist the opportunity of stating, that the effect of this preparation of iron is equally encouraging in leucorrhœa. In the manufacturing districts, a vast majority of females are subject to this affection, and the number applying for relief at the dispensary for this affection only is incredible. A wash of sulphate of zinc, and a similar mixture as above given in Wood's case, is found to be very effective in spite of the best remedy; however, their standing employment, in an overheated atmosphere, soon tends to a return of the disease. I have succeeded, also, in restoring the menstrual discharge by its exhibition; and as cases of leucorrhœa are frequently the effects of dysmenorrhœa, the checking of the former has not unfrequently restored the latter.

London Lancet, Dec. 5, 1841, p. 373.

5.—INSPISSATED OX-GALL IN JAUNDICE.

By Dr. Johnson.

Dr. Johnson states that he has, in some very bad cases of jaundice, administered inspissated ox-gall in doses of five grains, gradually increased to ten grains, three times a day, with the best effect. He explained the action of the remedy, on the principle that the ox-bile was the best substitute that could be found for the human secretion.

London Lancet, Dec. 19, 1840, p. 447.

6.—ON THE STETHOSCOPE WITH A FLEXIBLE TUBE.

By Dr. Golding Bird, Lecturer on Medical Physics, at Guy's Hospital, and Physician to the Finsbury Dispensary.

[Dr. Golding Bird recommends this alteration in the stethoscope, for reasons which he describes at length in an able paper. It will be sufficient, however, to state that his reasons seem to us to be very satisfactory, and we, therefore, proceed, in his own words, to describe the instrument:]

The following is a description of the modification of this instrument, which I have for some time employed, and which I am anxious to recommend to the notice of my professional brethren, as one which will be found most convenient in practice. The end which is applied to the chest consists of a thin cup of ebony, an inch in diameter, and carefully rounded at its edges: a flex-

ible tube, from sixteen to twenty inches in length, formed of a spiral iron wire, covered with caoutchouc, and bound tightly round with silk or velvet, having an internal diameter of about one-fourth of an inch, is fixed into the apex of this cup: the other end of the tube is cemented into a perforated ebony ball, on the top of which is screwed a slightly concave plate of ivory two inches in diameter, also perforated in its centre.

When this instrument is used, the ebony cup should be held between the fingers and thumb of one hand, against the walls of the chest, and thus, with the utmost facility, and without producing unnecessary pressure, a tolerably air-tight approximation is effected. The ebony ball at the other end should be held in the other hand, and the ivory plate closely applied to the ear. In this manner we have a column of air, bounded at one extremity by the vibrating surface of the chest, and at the other by the membrana tympani, which thus becomes placed in the position most favourable for assuming vibrations through its whole extent.* The cup of ebony has its vibrations *damped* by the pressure of the fingers grasping it, whilst the covering of silk or velvet performs a similar office, with sufficient accuracy, for the spiral wire forming the tube of the instrument, whilst from the convenient position in which the physician can place himself with regard to the patient, the necessarily close approximation of the end of the stethoscope to the surface of the chest may be effected. In addition to this, the intensity of sound does not appear to be sensibly diminished by the flexture of the tube, and thus we can auscultate the sides and back of the chest by a very slight movement of the body of a patient whilst in the recumbent position. Indeed, no one can very well appreciate the convenience, or, if I may be allowed the expression, the luxury, arising from the use of an instrument of this kind, except those engaged in Dispensary practice; for when called upon to visit a patient lying on the floor, or on a low and miserable bedstead, in too debilitated a state to be raised into the erect position with safety, the physician can examine the state of the respiratory organs without risking his patient's safety by raising him, or his own comfort by placing himself in a position parallel to that of the poor sufferer whose condition he is attempting to alleviate.

It is perfectly true that by the aid of the instrument which I now take the liberty of recommending to the profession, certain sounds of the heart, depending upon impulse, are not so perceptible as by means of the solid stethoscope, and in these cases the latter instrument, or the naked ear, should be employed. This, however, so far from being an objection, rather adds to the utility of the flexible stethoscope, for by isolating impulse from sound, I am quite convinced that certain soft murmurs existing in some states of cardiac disease, scarcely, or not at all audible when the solid stethoscope is employed, become very distinct when the attention becomes concentrated on the sound alone by means of the flexible instrument. I have been much gratified by finding that my own experience has been supported by that of others, and that the flexible stethoscope, with the flat or slightly concave ear-piece, which I first used at Guy's Hospital in last June, is now employed by many practitioners for the very reasons to which I have above alluded.

Medical Gazette, Dec., 11, 1840, *p.* 440.

7.—A FEW HINTS ON THE TREATMENT OF INFLAMMATION.

By Dr. Watson, Lecturer on the Practice of Physic, King's College, London.

[This excellent physician very judiciously enters into the treatment of inflammation, and of course places his chief reliance on blood-letting, copiously used at the commencement of the disease. Respecting vene section from the external jugular vein, he says:]

* Muller's Physiology, by Baly, p. 1253.

There is a distinct and peculiar danger attending the incision of this vein, that, namely, of admitting *air* into it. You perhaps are aware that if air enters a large vein near the heart, and passes on to that organ, it kills outright. If you open the jugular vein of a horse, and blow forcibly into it towards the heart, the animal drops down dead. The celebrated Dupuytren was performing some operation about the neck, in the course of which he cut across one of the veins there situate: some bubbles of air rushed in at its open mouth, with an audible clucking noise, and, in an instant, his patient expired. The same frightful accident has occurred in operations performed in this country, and in America. I was told very lately that in one of our metropolitan hospitals it was thought right, for some reason or other, to bleed an adult patient by opening his jugular vein: the opening was made very near the clavicle, so that pressure between the orifice and the heart was difficult to effect. Of course the blood soon leaves the portion of the vein nearest the heart; and whether by some suction power of the heart itself upon the veins or how, one scarcely knows, but air rushed in, and the patient was presently a dead man.

[When on the subject of mercury in the treatment of inflammatory diseases, he offers the following valuable hints:]

Patients who are kept under the influence of mercury grow pale as well as thin: and Dr. Farre, who has paid great attention to the effects of this drug, remedial and injurious, holds that it rapidly destroys red blood: as effectually as it may be destroyed by venesection. As an example of this he was in the habit of relating in his lectures the case of a lady who was attacked with hematemesis: her gastric system and her liver was gorged with blood. "Her complexion," said the doctor, "was composed of the rose and the violet. Under a course of mercury she was blanched, in six weeks, as white as a lily."

The facts I have already mentioned shew that it has a loosening effect upon certain textures; that it works by pulling down parts of the building.

But the great *remedial* property of mercury is that of stopping, controlling, or altogether preventing the effusion of coagulable lymph; of *bridling adhesive inflammation:* and if we, in our turn, could always bridle and limit the influence of mercury itself, it would be a still more valuable resource.

From the little I have now said you will readily understand in what description of cases mercury is likely to be useful. In common adhesive inflammation, whether of the serous or the cellular tissues; whenever, in fact, you have reason to suppose that coagulable lymph is effused, or about to be effused, and mischief is likely to result from its presence, then you may expect much benefit from the proper administration of mercury; as an auxiliary however, to blood-letting, not as a substitute for it.

There are two expedients which I am confident are often of very great use in checking the violence of the salivation, and in removing the most distressing of its accompaniments. If there be much external swelling, treat the case as being, what it really is, a case of *local inflammation:* apply eight or ten leeches beneath the edges of the jaw bones, and wrap a soft poultice round the neck, into which the orifices made by the leeches may bleed; and I can promise you that, in nine cases out of ten, you will receive the thanks of your patient for the great comfort this measure has afforded him. When the flow of saliva, and the soreness of the gums, form the chief part of the grievance, I have found nothing so generally useful as a gargle made of brandy and water; in the proportion of one part of brandy to four or five of water.

[Speaking of antimony, Dr. Watson says:]

Antimony, as far as my own observation goes, is admirably suited to cases

of active inflammation, in which mercury would either be not so useful, or could not be brought to bear. It is in inflammation of the mucous membrane of the air passages that antimony is so signally beneficial. You will see a patient labouring for breath, unable perhaps to lie down, with the turgid and livid countenance from imperfect arterialization of the blood. He has been ill but a short time; it is an acute affection; and upon listening at his chest, you hear that peculiar wheezing sound which we call *sibilus*, in every part of his lungs. I shall have to describe this sound, and its causes, and its meaning, in a future part of the course. You give such a patient repeated doses of antimony; he becomes sick, vomits perhaps, but he feels nausea; his pulse becomes less forcible, his face grows pale, and he can breathe again. The nausea is not a pleasant sensation; but the want of breath is a far more distressing one; and that is greatly mitigated. Perhaps a free secretion takes place from the congested membrane, and then the patient is easy and safe. Now you could not effect this change so quickly and readily, or so conveniently, by mercury, and perhaps not at all. Bronchitic affections are very common in children, in whom it is usually difficult to induce the specific influence of mercury.

On the other hand, antimony does not appear to be nearly so valuable a remedy as mercury, when serous membranes are inflamed.

As to the form in which the antimony should be exhibited, I apprehend that we shall all come at last to freshly dissolved tartar emetic. When you desire to obtain its full influence in a short time, you may dissolve a grain of the tartar emetic in two ounces of hot water; and give a fourth part of the solution every half hour. If the patient becomes pale and sick, you pause awhile and allow him to recover himself; and if the inflammatory symptoms return, you repeat the medicine. It sometimes acts violently upon the bowels, and then it will be necessary to add a few drops of laudanum to each dose.

Medical Gazette, Dec. 25, 1841, *p.* 498–503.

8.—TREATMENT OF CERTAIN DISEASES OF THE BRAIN.

By E. Copeman, Esq.

[We know of no cases which require more careful discernment of pathological condition, than those which stimulate apoplexy from compression of the nervous centre. Dr. Corrigan was, we believe, the first to point out, that many cases which were usually treated by antiphlogistic means were in reality, better cured by stimulation. These cases were chiefly owing to a diminution of blood in the brain, from valvular disease of the left ventricle, and other diseases of that viscus. The reader will see an account of that author's views, in an able paper by Dr. Law in the Dublin Journal of Medical Science, for May, 1840, an abridged account of which will be found at page 76 of the first number of our "Retrospect." Mr. Copeman, in his interesting cases, lately published in the Medical Gaze te, seems to be of a somewhat similar opinion, as far as the employment of stimulants and general treatment, in preference to bloodletting and depleting means are concerned: although he does not at all allude to the state of the heart. Disease in that organ, may nevertheless have existed, and escaped his observation. In most of his cases of apoplexy, paralysis, &c., he was exceedingly cautious in the use of the lancet, as he rightly supposed that they were owing to functional, rather than organic disease of the brain. On being called to the first case which was one of apoplexy, Mr. Copeman says:]

I found him complaining of giddiness, and his conversation was incohe-

rent—pulse excited, but not very full; tongue furred: slight pain in right temple. I immediately drew about sixteen ounces of blood from the arm, and administered purgative medicines. He was slightly relieved by the bleeding, but in the course of the day he almost lost the power of expressing himself, his memory failed, and he was scarcely able to stand alone. I requested a consultation, and in the evening met an experienced practitioner from Norwich, who advised cupping: this was performed in his presence, and before many ounces of blood could be drawn, the patient had a convulsive start, became faint, and it was feared a paralytic seizure was at hand. The cupping was immediately discontinued, and he was removed to a warm bed.

[He was treated on the antiphlogistic plan, and recovered very slowly. The same individual had two other attacks of a similar nature, but was treated by mild stimulation and attention to improve the state of the stomach, which had been overloaded with food, and he recovered the use of his speech and limbs in an incredibly short time. Several other cases are then related which were treated with equal success; showing that there are many cases of apparent compression and disease of the brain, when in reality there is only a functional disorder of that part, and which is to be cured by other remedial means than those applicable to real apoplexy. From his cases Mr. Copeman draws the following inferences:]

1. That apoplectic and paralytic affections may take place in an extreme degree without organic disease of the brain.
2. That they often occur from other causes than pressure on the brain.
3. That bleeding, so far from being always necessary, is in many instances prejudicial.
4. That the effort of vomiting is not so prejudicial in these diseases as is generally supposed.
5. That counter-irritation, both external and internal, is a valuable means of affording relief to the symptoms immediately succeeding the attack.

[Mr. Copeman ends his truly practical paper, by the following observations:]

In case 1, the first attack (for the patient had three separate attacks of apoplexy), seemed to be the result of effusion and pressure on the brain; but it is clear that the 2d and 3d attacks, although much more severe at the commencement, could not have depended upon such a cause, or recovery would not have been so rapid and perfect. It is probable, therefore, that the first as well as the others arose from disorder of function, and not from organic disease. For the same reasons, the case of Hemiphlegia (No. 2) must have arisen from functional disturbance of the brain, and not from effusion of blood or serum.

In the second attack, case 1, what are generally considered symptoms of compression were very marked; but had pressure been the cause of them, how could recovery have taken place so rapidly, and relief have been afforded immediately on the stomach rejecting its contents?

It is beyond a question that pressure upon the brain may exist to a greater extent than can be imagined to occur from loaded blood-vessels, without apoplectic or paralytic symptoms being produced. Compression is not the only cause capable of producing those symptoms, and I am inclined to believe that such a cause does not exist in a majority of the cases of apoplexy that present themselves.

In all cases of apoplexy or paralysis, in which the cause is dubious, "and such, on the first examination of them, the majority of them will probably be, it seems right to try the effect of correcting disorder of the digestive organs,

with a view to alleviate nervous irritation, before we proceed to those severer methods, which the belief of the existence of organic or vascular disease in the brain would induce us to institute. For if blood-letting and counter-irritation be employed, in order to diminish vascular action: or if mercury be used to some extent, in order to induce the absorption of deposited substance; these measures must aggravate that disorder of the general health, upon which, in many instances, the nervous affection depends."

A question of great importance remains to be discussed, namely, whether there are symptoms generally present in cases of apoplexy and paralysis, which, by strict observation, may enable us to distinguish clearly between those which require bleeding, and those which would be better treated without it. I frankly confess my inability to answer it satisfactorily, and find that others have also failed in doing so. If I may be allowed to give an opinion, I should say that bleeding is unnecessary or prejudicial where the patient is 60 years of age or upwards; where the pulse is feeble, very frequent, intermitting, slow, or large, and inclined to double beat, (I have always found a pulse with double beat indicative of a state of system best relieved by diffusible stimuli,) where the respiration is laboured and accompanied with *cold* perspiration; where there is great mobility of the nervous system with weak muscles, whether the body be thin or *corpulent;* when the attack comes on soon after a full meal, or after great bodily or mental fatigue.

A quick, wiry, resisting pulse, flushed countenance, warm perspiration, noisy breathing, and a tendency to spasmodic muscular contraction, occurring in persons of an earlier age, seem to point out a necessity for resorting to abstraction of blood; but I believe there will be less danger in not bleeding in any case, than in always having recourse to it, where there are *some* circumstances indicative of the propriety of its employment.

Medical Gazette, Dec. 25, 1840, *p.* 507—515.

9.—TREATMENT OF CYNANCHE BY GUAIACUM.

By Joseph Bell, Esq., Banhead.

[Several very successful cases of this troublesome and painful disorder are related by Mr. Bell, in which half drachm doses of the powdered guaiacum every four or six hours, either alone or mixed up in a suitable form, were attended with very remarkable success: and we recommend the reader to turn to the several cases related in the original paper in the Medical Gazette. Mr. Bell's formula is as follows:

℞ Pulv. Guaiac. ʒiij.; Mucil. G. Arab.; Syrup. Simpl. aa. ℥ij.; Aq. Cinnamom., Aq. Puræ, aa. ℥iv. M. et solve. Capt. ℥ij. 4ta. q.q. h.

[One or two days are only required for the cure. In other cases the powdered drug was given in some simpler vehicle. It will be found chiefly successful, if given before suppuration has taken place.]

Medical Gazette, Dec. 25, 1840, *p.* 516.

[Guaiacum is a favourite remedy of Dr. Seymour's in rheumatism. In one of his late clinical lectures, at St. George's Hospital, speaking of the treatment of rheumatism, he says:]

I generally premise a good bleeding, and afterwards administer the *guaiacum mixture*, and in a few days the patients are well. In the cases at present under our notice, I have followed out this plan, and you have seen how very successful it has proved. How the *guaiacum mixture* acts in these cases, I do not pretend to say, except that it causes a profuse increase of the secre-

tions from the skin, the bowels, and the bladder; I never find that it begins to effect a cure until all these are fully established.

Medical Times, March 20, 1841, *p.* 300.

10.—PIPERINE IN INTERMITTENT FEVERS.

By Dr. Hartle, Port of Spain, West Indies.

[As many cases of intermittent fever resist the use of quinine, and all the other remedies in ordinary use, we may look upon the following cases exemplifying the use of piperine as an excellent addition to our knowledge of the treatment of this disease. Dr. Hartle says:]

I began, as soon as the sweating stage was established, by giving three grains of piperine every hour, until eighteen grains had been taken; and on the following day, when the intermission was complete, I gave the same quantity every three hours. It has in every case succeeded in checking the paroxysm, and as soon as that was accomplished, I gave for some days the following pills:

℞. Pilulæ Hydrarg. gr. i.: Piperinæ, gr. ii.; Sulph. Quinœ, gr. ii.; Syrup com. q. s. f. M. f. Pil. No. 1. omni mane, meridie, et. vespere capienda.

I shall here subjoin a few cases of long standing intermittent, in which the piperine was given as soon as general perspiration commenced, without regard to the heat of skin or quickness of pulse.

1. Miss S., aged 18.—This young lady had suffered periodically upwards of two years with intermittent. It appeared that she had taken sulphate of quinine in great quantities and very large doses, with the effect of only subduing the disease for a short time. She had been removed to North America for change of climate, and every other means had been used to cure the disease, without success. Her father in conversation mentioned this to me, and I advised him to give the piperine; and, accordingly, gave him the following prescription, with directions to begin as soon as perspiration became general, and that, should she escape the second paroxysm, the pills were to be continued every third hour.

℞. Piperinæ gr. v.; M. G. Acaciœ, q. s. f. M. f. Pil. No. 1. 2da quaque hora sumenda.

It is now upwards of three years, and she has continued free of the malady.

2. Mrs. C., aged 30, had had several severe paroxysms of tertian intermittent, but very irregular in its attacks. Infusion of bark as well as sulphate of quinine had been freely taken, but to no purpose. On the morning of the seventeenth of April, 1837, while taking a cold bath, she was seized with an ague. I was sent for at seven o'clock A. M. I found her shivering severely. I ordered warm drinks to be given frequently. At twelve o'clock the cold shivering continued, and the symptoms were alarming. The pulse was scarcely to be felt. The coldness was universal, clammy, and unpleasant to the touch. The lips were of a slate colour. The countenance was contracted, the eyes sunken; and the patient evinced marks of great agitation and alarm.

I ordered hot flannels to be applied over the chest and abdomen, the legs, and feet to be rolled up in hot cloths, and stone vessels filled with hot water, to be constantly kept under the arms, and along the inside of the thighs and legs. Warm brandy toddy was ordered to be frequently given in small quantities. At four o'clock, P. M., finding that reaction could not be brought on, I gave five grains of piperine, which was with difficulty swallowed; and I washed it down with an ounce of brandy, in half a tumbler of champagne.

I then ordered full doses of the aromatic spirit of ammonia every third hour, and the champagne to be continued.

At six P. M. reaction commenced; and as the heat increased I withdrew the hot applications, and suspended the stimulants. By eight o'clock at night the heat was general, and in proportion to the cold stage. The following morning the sweating stage commenced; and, as soon as it was general, I began with five-grain piperine pills every second hour, and continued them for four days. She had no return of the disease: and for a few days I continued to give four of the pills a day. She has never had a return since.

3. Mr. W., aged 27. This young gentleman, a European, had, soon after his arrival in this island, about a year and a-half ago, a severe attack of remittent fever, which ended in tertian intermittent. He had taken a quantity of sulphate of quinine, which for a short time checked the paroxysms; but for three months, it had constantly returned every forty-eight hours, and so reduced his strength that he was unable to perform the duties of his occupation. In consequence, his employer directed him to call on me for advice. On examining him, I found his liver and spleen enlarged and hard, yet free from pain when pressed on. I ordered the following pills:

℞. Piperinæ, gr. xxxvj.; Pilulæ Hydrarg., gr. xij. M. f. Massa in pilulas xij. distribuenda. Quarum capiat unam 2da quaque hora.

And in case the bowels were not free, he was to take the following mixture:

℞. Sulph. Magnesiæ, ℥iss.; Sulph. Quiniæ, ℈ij; Aq. puræ, ℥xx. Acid. Sulph. Dil. ℥ij. M. Hab. Cyathum pro re nata.

It is now three months since he had an attack of the disease, and his health is perfectly restored.

I must here observe, that a number of patients object to taking the sulphate of quinine, in consequence of its affecting the head; but the piperine, although a powerful stimulant, carminative, and febrifuge, does not in the least degree affect the sensorium.

Edinburgh Medical and Surgical Journal, Jan., 1841, *p.* 98.

11.—THE USE OF CROTON OIL IN CERTAIN NERVOUS DISORDERS.

By Dr. NEWBIGGING, Physician to the Edinburgh New Town Dispensary.

[From several remarkable cases of epilepsy, sciatica, &c., in which Dr. Newbigging found the croton oil very useful, while other purgatives did not exert the same beneficial effect, he is led to suppose there may be some peculiar properties in this drug independent of its violent effects as a purgative. Sir C. Bell first brought it into notice in the treatment of *tic douloureux*. In one patient at sixty, whose attacks of epilepsy came on regularly every six weeks for the last twelve years, a drop and a half was given with good purgative effects, its use was occasionally continued, and the fits did not return. In another patient, a boy five years old, in whom the fits came on twice or thrice in twenty-four hours, and who had been epileptic for two years one drop was given, the fits soon abated, and the patient ultimately recovered. Those cases are chiefly benefited in which there is "some irregularity in the cerebral circulation." Those cases in which there is organic disease of the brain, or its meninges were not much benefited by the oil.]

The next case, says Dr. N. which I have to state is that of a woman aged fifty, who had been a sufferer from sciatica for three years, and been under medical treatment without deriving any perceptible benefit. I learned from

her that local blood-letting, counter-irritation, setons, &c., had been employed without advantage: and when I and my friend Dr. Philip Maclagan were called to see her, she was unable to leave her bed, and was so helpless as to require the constant assistance of another. We commenced the use of the oil externally as a counter-irritant, and administered it internally in a moderate dose morning and evening. This system she continued for some time, and in about a fortnight after its commencement she was enabled to leave her bed, and move about the house. The pain has now left her, and she complains only of want of power in the limbs.

In the following case, that of a gentleman who had, during a period of ten months, suffered great pain in the anterior and lower part of the right thigh, the pain was so acute, as to be supposed to have a periostitic origin, and leeching, fomentations, blisters, &c., were employed, and medicines given internally, without any alleviation of his suffering. Two drops of the oil were administered. Full action of the bowels with great nausea supervened, and the pain simultaneously left him; nor has it since returned.

Andral states that he has observed great benefit arising from the employment of this oil in neuralgic complaints, when purging ensued; whereas, a similar action on the bowels induced by other medicines was not followed by a like result.

It has been ascertained by* M. Brandt that croton oil contains, amongst many other ingredients, a peculiar acid, to which he has given the name of *crotonic*; but whether this be the source of what appears to be the specific action upon the nervous system, which I have endeavoured to illustrate, it would be difficult to affirm.

Edinburgh Medical and Surgical Journal, Jan., 1841, *p.* 102.

12.—REMARKS ON BLOOD-LETTING IN INFLAMMATION.

[In commenting on the practice of Dr. Thomas Barbour, published in the American Journal of the Medical Sciences, viz., that of bleeding in the erect posture in inflammation, and then giving a large dose of opium to prevent reaction; the editor of the Edinburgh Medical and Surgical Journal justly states, that, however new the practice might be thought in America, it was no novelty in this country, Dr. Armstrong and other eminent physicians having long since adopted the same practice. Our chief object, however, is to publish the following very judicious remarks which accord entirely with our own opinion, except when the disease is in the head, eyes, upper parts of the body, in which case, the erect position must certainly be the most proper, and during venesection, must cause the greatest drain of blood from the parts.]

Though Dr. Marshall Hall and various other physicians recommend the detraction of blood in the erect postion, as best calculated for producing speedily on the system the conditions favourable to the removal of inflammation, it will often be found that it gives rise to a great fallacy. The faintness thus produced is often merely mental, and is always too temporary and too trifling to facilitate the removal of the congested blood from the vessels of an important organ or membrane in a state of intense inflammation. Blood-letting, to be beneficial, operates not only as a physiological remedy, but by its hydraulic effects upon the whole vascular system, and thereby upon those of the inflamed organ; and, unless the former are relieved of the load with which they are distended, it is impossible that the blood can be withdrawn from the latter, or that their tension and fulness can be diminished. Then comes the physiological effect, which is partly referable to the contractile

* Journal de Pharmacie, Tome xi.

power of the capillaries of the organ, if not wholly destroyed, and partly to the imbibing and resorbent power of the veins. These effects are always most completely insured by drawing blood in the horizontal position; and by taking as much as is likely to diminish sensibly the tension and fulness of the vascular system. It is chiefly in the state thus produced, when the quantity of blood is so small as not to stimulate in the wonted manner either the heart and arteries or the system at large, that the exhibition of opium in large doses becomes beneficial and curative. It then allays nervous irritability, favours the return of the circulating current to the heart and large vessels, and by acting on the capillaries, determines the skin, and abates internal determination.

Edinburgh Medical and Surgical Journal, Jan., 1841, p. 200.

13.—ON CHLOROSIS.

By Dr. Ashwell, of Guy's Hospital.

[We extract the following valuable remarks from the review of Dr. Ashwell's work, on the diseases peculiar to women, as they will be found truly practical.]

PATHOLOGY OF CHLOROSIS.

It may probably be fairly assumed, certainly it is the most prevalent opinion, that chlorosis primarily depends upon a morbid condition of the blood, which secondarily affects the ovaries and uterus, by retarding their growth. This opinion is supported by the fact, that in the blood of chlorotic patients there is an increased proportion of the serum, with a marked diminution of crassamentum. This has always been my view of the disease; nor would it be difficult to trace to this morbid condition of the blood, many, nearly all, the different theories that have been propounded.

TREATMENT OF CHLOROSIS.

The treatment of simple chlorosis should be the type for the treatment of the other forms; but a most grave error is too often committed, by considering it a local, not a constitutional disease; and ignorant practitioners, from the untimely use of drastics and emmenagogues, have yet farther reduced the already enfeebled powers, and facilitated the advent of pulmonary disease. The author deplores, in common with every medical man of proper feeling, the prevalent faulty notions on the subject of physical female education, leading as they do to the production of so many serious and fatal diseases: he believes that, were these amended, chlorosis would become a rare disease. Alas! many, many yet must be the victims sacrificed at the shrines of fashion and folly, ere mothers learn prudence, or fathers compel the observance of the dictates of common sense.

Our first attention must be directed to the improvement of the state of the digestive organs, for, how shall we amend the deteriorated condition of the blood, until the organs of nutrition are in a fitting state for its elimination. But here a prudent hand must guide the means: our object is not to excite excessive purging, as a direct mode of cure, but to secure the due relief of the bowels by aloes and rhubarb, sulphate of soda and manna, and, where alteratives are required, the hyd. c creta. Mild cordials should be combined with the aperients. Warm clothing, regular exercise, and when the state of the appetite will permit, meat diet and mild malt drink, are to be recommended. If we succeed in improving the state of the digestive organs, the general vigour is in some degree restored, and the complexion partially

cleared, but the catamenia are seldom by this alone induced. Now is the appropriate period for the administration of *iron*, especially the *sulphate*, while, had this remedy been employed prior to the due regulation of the secretions of the alimentary canal, the symptoms would have become aggravated, and not relieved. Its effect, when given judiciously, is sometimes magical. In some cases the sub-carbonate is better borne, and occasionally other tonics, as quinine, sarsaparilla, zinc, &c., effect the purpose.

As to *emmenagogues*, they are best employed when the pallor has become diminished, the bowels more regular, and the blood both more abundant and of richer quality. *Iron* (and especially the iodine, when the strumous diathesis is associated with chlorosis) is often alone a sufficient emmenagogue. The use of the mustard hip-bath, and of the local salt shower-bath across the loins, are excellent adjuvants. The injection of the vagina with the strong ammonia (liq. ammon. ʒj. lactis ℔j.) has proved useful in the Hospital. Dr. A. has great doubts of the utility of applying leeches and cataplasms to the mammæ; he has often seen electricity useful. Travelling, with the change of scene and of habits it necessitates, as also a visit to chalybeate waters, and a sea voyage, have often cured chlorosis. The treatment requires to be early adopted, and most perseveringly continued, perhaps for months. As the cure progresses the diet should be improved, and the patient permitted to take mild ale or porter, or, if these are disagreeable, a little negus with her meals.

[The following remarks on emmenagogues we would strongly recommend to the young practitioner.

The author does not believe that there are any medicines which exert a specific effect upon the menstrual secretions, but that there are several, which, by reason of their stimulating the uterus, become important auxiliaries. These means are contra-indicated in amenorrhœa and chlorosis, arising from malformation or absence of the generative organs, as also in cases of mere absence or slow development of puberty, or when the amenorrhœa is connected with phthisis or plethora. They are found useful in inactivity of the uterus, occurring after the establishment of puberty, where neither plethora, or marked delicacy of constitution is present, as also in hysterical irritable women, in whose cases cordials and tonics have been tried in vain. In chronic suppression they are especially indicated. Their exhibition should be preceded by local depletion, regulated diet, and purgatives.

1. *Local Emmenagogues.*—The only powerful emmenagogue by which the uterus can be directly stimulated is *electricity*. Although employed with some success of late at Guy's, it is an uncertain remedy and should be very cautiously used. *Leeching the os uteri.*—If some leeches be applied by means of a glass, a few days prior to the period, and repeated several times, by removing the congestion, they will frequently reproduce the secretion. *Stimulant injections of the vagina.*—Dr. Ashwell speaks highly in favour of the ammoniacal injection. It should be commenced three days prior to the expected period, and should be retained in the vagina for ten or fifteen minutes, by closing the vulva with a napkin. It should produce a sense of heat, tingling, or even of pain, and should not be employed when congestion is present. He reprobates, as risking the excitement of peritonitis, the injection of the uterine cavity itself. *Mustard hip-bath* is often very useful, but the patient should remain in it an hour each time. The exhibition of *mustard* by the mouth (gr. 8—12 ter quaterve ex M. camph), just prior to the menstrual period, is often attended with excellent effect. *Sexual intercourse* is sometimes a good emmenagogue, though of course, of but limited application. *Stimulating clysters* are much recommended by some authors, and Dr. Ashwell has used that of Dr. Schonlein (Aloes gr. x. mucil. ʒj. bis terve die) with good effect. Leeching the vulva or pubes, stimulating the thighs, hy-

pogastric or lumbar regions with embrocations, flesh-brushes, &c., &c., are all useful adjuvants.

Medico-Chirurgical Review, Jan. 1841, *p.* 79.

14.—THE USE OF POULTICES IN INFLAMMATIONS OF THE GREAT CAVITIES.

By Sir Francis Smith, Paris.

Nothing is more remarkable in the practice of physic in France, than the constant use of cataplasms in the treatment of inflammations of the great cavities. The moment inflammation is supposed to exist in the chest or abdomen, the first order given is to apply cataplasms. Where a practice prevails so generally, it is worth while to inquire into its value, and to examine whether its advantages might not entitle it to a favourable consideration, where its use has hitherto not prevailed.

The benefits to be derived from the application of poultices over inflamed cavities, are analogous to those sought from, in their application to other inflamed parts, and may be stated to consist, first, in maintaining the temperature of the parts over which they are applied, and thus giving nature a better chance of effecting the resolution of the existing inflammation; secondly, by their moisture mechanically aiding in the relaxation of injured tissues; and thirdly, by drawing the capillary circulation towards the surface, acting the part of derivatives or revulsions.

The usual material for poultices is the linseed meal; and they are usually included within linen cloths. The poultices are generally so large as to cover the seat of inflammation. They should be removed and renewed every three or four hours. Particular attention to the latter circumstance is desirable, as the edges are liable to grow cold, and a disagreeable and dangerous dissipation of animal temperature is the result; and in this and in their weight consist, I think, the principal disadvantages of the system.

In the bronchial irritation attendant upon the exanthematous fevers, poultices to the chest are universally employed; and where any want of energy appears to exist in the system, preventing the coming out of the eruption, cataplasms, consisting of the usual linseed meal, with the addition of a very small quantity, say a twelfth or a fifteenth part of mustard meal, (not flour,) are applied to the feet, and maintained for days together; thus keeping up both the temperature of the extremities, and gently stimulating the skin. The same mixture is also, when necessary, applied to the calves of the legs and thighs—the practice in the latter instances being similar in intention to that adopted in Great Britain; but from the mustard meal being less irritating than the flour, and being used in so small a proportion, the sinapized cataplasms can be longer retained in their situation.

Pleurodynia, diaphragmitis, and many other affections of a painful nature, are likewise treated by poultices; and it is certain, that their effects are often, in such cases, very satisfactory.

Dublin Journal of Medical Science, Jan., 1841, *p.* 451.

15.—SALIVATION FROM IODINE CONTRASTED WITH THAT FROM MERCURY.

By Sir F. Smith, Paris.

In the July Number of this Journal* I made mention of a case in which I had met with salivation from the use of hydriodate of potass. The fact of

* The Dublin Journal of Medical Science.

salivation occurring from the use of iodine or its preparations is not new: I have, since the publication of the article referred to, met with it in two instances, in one that of a young gentleman using the hydriodate of potass, for a scrofulous necrosis in the bones of the legs; the other that of a young lady, who, for a glandular disease of the neck, was put under the influence of iodine, administered in the watery solution as recommended by Dr. Osborne, of Dublin, at the rate of a grain to the pint; both had been under the influence of the mineral during nearly four months, and had been copiously salivated, and required mercurial purgations, and the administration of bark for the relief of the ptyalism. In each of these cases the entire absence of fetor of the breath was remarked, as was mentioned to have been the case in that which was recorded in the July number. Now, it is worthy of inquiry, why, when fetor is so constantly found to attend salivation by mercury, none should accompany salivation by iodine or its salts? I believe the difference to depend upon the fact, that in the action of mercury upon the mouth, there is not only an action induced upon the salivary glands, but also upon the mucous membrane of the mouth, from the alteration in the structure of which latter tissue arises the fetor. If the mucous membrane of the lips, cheeks, or gums be examined with a powerful lens, at the period when mercurial action is commencing in them, a species of ulcerative absorption will be observed to be in progress, which, being increased by the continuance of the cause, soon ends in ulcers of greater or lesser size, perceptible to the naked eye. On the contrary, in the salivation by iodine, the principal, if not the only action of the medicine, is directed to the salivary glands; and though I have in one case observed, with great surprise, the teeth to be loosened, I have never been able to discover anything like ulcerative action to exist in the mucous membrane of the mouth, and upon this peculiar difference in their relative action depends, I believe, the presence or absence of fetor of the breath during salivation induced by mercury, and iodine or its compounds.

Dublin Journal of Medical Science, Jan. 1841, *p.* 453.

[In another part of these interesting medical observations of Sir F. Smith, he mentions the case of a man on the surface of whose skin air was secreted in abundance. He says:]

On the morning of the 15th, I was hastily summoned to see my patient in a bath. He told me, on my arrival, that the reason of his sending for me, was for the purpose of convincing me of the truth of his statement as to the exudation of air or gas from his skin; and as he only occasionally was able to demonstrate it, he lost no time in informing me of its occurrence. I found him in a bath at 70° of common river water (Seine); and upon examining his chest, shoulders, abdomen, and hands, I found him literally covered with small gas bubbles. I inquired of the attendant of the establishment, if he could account for the circumstance, and he said he had never observed anything of the kind before. I then caused my patient to lift his hands alternately from the water, when, of course, the air bubbles disappeared from those extremities; and on his returning them to the water, and retaining them near the surface, I could plainly perceive bubbles make their appearance, at first very minute, but gradually increasing in size, till they reached that of a pin's head, and the palms of the hands again became coated with them. I caused him to wipe away the bubbles from his hands and chest repeatedly, and in every case they were gradually replaced by others; they ran together, when pushed with the finger, like globules of quicksilver and could be moved about upon the surface of the hands or body, without quitting them, or becoming loose in the water. These experiments and observations continued nearly twenty minutes that I was present; and towards the end of the bath the edges of the metallic reservoir were coated all round,

but more particularly towards the upper end, where the shoulders had been, for a depth of from one to two inches, with small air bubbles, as if its contents had been charged more or less with carbonic acid gas. Mr. G. also expected to be able to exhibit to me an evolution of gas from the urinary bladder; but on his attempting to do so, was unsuccessful.

Dublin Journal of Medical Science, Jan. 1841, *p.* 457

16—ON THE PREPARATION OF THE PROTIODIDE OF IRON.

By Messrs. T. and H. Smith, Chemists, Edinburgh.

The protiodide of iron has not yet come into that general use which its efficacy, as a medicinal agent merits, a circumstance probably arising from the great difficulty of obtaining it in a pure state. We have procured specimens of this compound from various sources, and, except in one instance, invariably found that, when dissolved, they yielded a solution of the periodide, with the separation of a large quantity of peroxide of iron.

The protiodide of iron has its elements united by so weak an affinity, and the iron has so strong an avidity for oxygen, that, unless very great care is used in preparing it, to regulate the temperature, and avoid exposure to the atmosphere, part of the iron passes into the state of periodide, free iodine is given off, and another portion of the iron absorbs oxygen from the air, becoming peroxide of iron, which is left undissolved on putting the preparation into water. These changes take place even at common temperatures, unless the iodide is carefully kept from contact with the atmosphere. In order to obtain a real protiodide, we would recommend the adoption of the following method as one which we have found uniformly successful.

Having, in the usual way, prepared a solution of the protiodide of iron, boil it down in a glass flask, without removing the excess of iron, till the weight of the liquid is reduced to three or four times that of the iodine used. Then filter quickly into a shallow evaporating vessel, or common saucer, which, having placed in a flat cast iron evaporating basin, surround with an excess of lime, (the proportion being about a pound and a half for every four ounces of the solution,) placing it so that when it slakes and swells up it cannot fall into the dish containing the iodide. The iron vessel must then be carefully covered with a flat metal plate, and placed on a pretty hot part of the top of a table furnace. When the iodide becomes black and attains a pretty thick consistence, its state is examined occasionally by dipping into it the point of a spatula. When the water is nearly expelled, the iodide, as it cools, concretes on the point of the spatula into a solid, which is soft and slightly moist in consequence of the presence of a small quantity of water. When in this state it ought to be removed from the furnace, after being swept with a spatula, so as to remove any scum of decomposed iodide from the surface, and the basin, with the cover remaining in its place, wrapped up in several folds of a thick dry woollen cloth or linen towel, so as to retain the heat as long as possible, and allow the iodide to cool very slowly. On cooling it will be found in the form of a black, brittle, opaque, and crystalline mass, with a shining fracture. The iodide thus obtained is quite soluble in water, and produces a solution of a pale green colour. As soon as the iodide has cooled, it must be broken into small pieces, and rapidly put into very small and carefully stoppered bottles not containing more than one or two drachms each, which must be kept in as cool and dark a place as possible. When the iodide is prepared in a close vessel with lime, as gentle heat is not sufficient to render it anhydrous, from its having such a strong attraction for water, it may be kept for days under these circumstances, and still remain moist, but if pretty sharply heated, and removed before the water is

quite expelled in the manner recommended, it may easily be obtained in an anhydrous state without danger of decomposition, except at the extreme edge of the cake of iodide; this part ought therefore to be rejected. We have found that the protiodide of iron cannot be deprived of water by lime in vacuo at common temperatures, as, under these conditions, the iodide seems to have a much stronger affinity for water than the lime. We have kept the solution *in vacuo* for more than a week, along with a very great excess of lime, without obtaining it dry,—the solution loses water up to a certain point, and then remains wholly unchanged.

Edinburgh Monthly Journal of Medical Science, January 1*st*, 1841. *p.* 26.

[The following method of preserving the iodide of iron is given by Dr. A. T. Thompson.]

Dr. A. T. Thompson brought before the Westminster Medical Society an improved mode of preserving the iodide of iron, which, from its very ready decomposition, was very difficult to keep in an effective state. He had been indebted to a foreign journal for the suggestion of the plan; he had found that a syrup composed of a fluid drachm of the preparation, and a drachm of white sugar evaporated to one drachm altogether would keep for a long period, the iodide of iron remaining perfectly unchanged. The fluid preparation might be made of any strength but he generally preferred one of which a drachm held three grains of the preparation in solution. He believed that the protoxide, the carbonate, and other preparations of iron, might be preserved in the same manner in as pure a state as they were at the moment they were found.

London Lancet, January 30*th*, 1841, *p.* 655.

M. Oberdoerffer of Hamburgh has proposed to substitute the sesqui-iodide of iron for the iodide, as being less subject to decomposition than the latter. It is made by forming, in the first place, an iodide in the ordinary way, by the union of sixteen parts of iodine and six of iron in thirty-two of water. This is filtered, diluted with 128 parts of water, 8 parts of iodine added, and the whole quantity of water made up to 320 parts. If the above *parts* are made *grammes*, eight grammes of the solution are equal to forty-five centigrammes of iodine. It produces the same effects as the iodide, but ought to be given in smaller doses, being more active.

Edinburgh Monthly Journal of Medical Science, January 1*st*, 1841, *p.* 56.

17.—THE USE OF OPIUM IN ACUTE INTERNAL INFLAMMATIONS.

By Robert Christison, M.D., F.R.S.E., Professor of Materia Medica in the University of Edinburgh.

[Although we cannot entirely agree with Dr. Christison in some of the following views of the effects of opium, we present a full account of them, and leave the reader to draw his own conclusions. But for our own part, we should be more sparing in the use of this powerful medicine, as its abuse or mismanagement might easily be fatal in inflammatory diseases. Dr. Christison proceeds to say:]

1. The varieties of internal inflammation which best exemplify this action of opium, when given singly, are the inflammations of the mucous membranes. Of such diseases there are at least four which may often be thus successfully treated without almost any other remedy, namely,—coryza, catarrh, influenza, and dysentery.

As to *Coryza*,—most persons on feeling its approach, are content to submit without a struggle to the infliction, and eschewing alike physic and the physician, let their "cold in the head" take its own way. But few would do

so, were they aware how easily and how agreeably so tormenting a visitor may for the most part be got rid of. For twenty years I have been accustomed to see it stopped at once by a full opiate given on the first day of its appearance. Let the patient avoid food after dinner, use liquid sparingly, take a full dose of muriate of morphia, or Battley's solution, at bedtime, and breakfast before getting up next morning,—and he will then commonly find the secretion of the nostrils permanently inspissated, and the complaint either gone entirely, or at any rate no longer a source of particular annoyance.

During the same period, I have often seen a common *catarrh without fever* cut short in like manner, if taken on the first, second or perhaps even the third day. Or more generally it seems to pass at once over the intervening stages to that in which thick sputa are coughed or hawked up without labour, and without irritation in the chest or wind-pipe. *Febrile catarrh* too may be checked abruptly in the same way if patient and physician are lucky enough to meet during the first or the second day at farthest. But here probably the next mode of employing opium is more fully successful. I have also repeatedly seen epidemic *influenza* thus checked at the outset,—the local inflammation vanishing, while the strange lassitude, listlessness, and ennui, so characteristic of this disorder, went on as usual for some days during convalescence.

Although an authority so recent and so eminent as Mr. Pereira states that "in *dysentery*, opium can only be used beneficially in the latter stages, and then with great caution." (Mat. Med. 1303); this is another and more formidable malady, which, if I mistake not, may be added to the mucous inflammations capable of being cut short in the early stage by opium. I doubt whether Mr. Pereira's doctrine will be received at all as a general proposition. There is not a better way of treating an ordinary mild dysentery at the commencement, than by the familiar practice of alternate opiates and laxatives. But,—what is more connected with the matter now chiefly under review,—in severe epidemic dysentery, as it occurs at times in this country, the cure, when early begun, may be commonly trusted, if I may rely on my own experience, to opium alone,—not used, however, "with great caution," but given boldly, and often.

2. The method of using opium along with ipecacuan as a sedative, anodyne, and sudorific, in the early stage of acute inflammations, is probably applicable to a considerable number of diseases of the kind. Those alone in which I have employed it, are common sore throat, catarrh, and acute rheumatism.

From frequent observation, I am inclined to think that there are few cases of *acute cynanche tonsillaris*, which may not be cut short at the outset by this treatment, if they are subjected to it about the close of the first, or at all events before the close of the second day. Of several instances I have met with to this effect, the following are examples:

A lady, rather subject to febrile cynanche tonsillaris, was attacked with rigors in the evening and sore throat during the night. Next day the right tonsil was much enlarged and red, and the posterior palate and velum red and thickened,—the pulse at the same time being one hundred and twenty, and sharp, and the febrile oppression considerable. In the evening, and therefore within the first twenty-four hours, ten grains of Dover's powder were given at intervals of half an hour, till half a drachm was taken. Perspiration, which soon broke out gently, was kept up for fifteen hours by warm drink. In twenty hours after the powders were taken, the pulse was seventy, the pain in swallowing gone, and the swelling and redness insignificant; and on the subsequent morning she was able to leave her bed. This attack happened eight years ago at least, and the disease has not returned since.

A lady about thirty-eight, long a martyr to cynanche tonsillaris,—which, in particular for three years before, had returned during the winter, ended in

abscess of one or both tonsils, occasioned great and protracted torture, and had left chronic enlargement of these glands,—was attacked in the same way for the fourth time. When I first saw her on the fourth day of the disease, the tonsils, greatly enlarged, especially on the left side, blocked up nearly the whole throat. She spoke with much difficulty, could not swallow without long, painful, and repeated efforts, and breathed noisily and with labour. The pulse was one hundred and sixteen, full and soft. The febrile oppression and anxiety were great. A large blister had been applied to the throat, and purgatives taken freely, but without the slightest benefit. The attack seemed too far advanced to be arrested. But as fluctuation could not be detected in the larger tonsil, Dover's powder was ordered as in the former case. Sweating ensued; ere long, warm drink could be swallowed with no great difficulty; and when the perspiration had thus been kept up for twenty-four hours, the pulse had fallen to sixty-four, the swelling of both tonsils had materially subsided, and the febrile anxiety had ceased, together with the local uneasiness in a great measure. In two days more there was little complaint left except weakness. In the course of time, the chronic enlargement of the tonsils disappeared; and this lady, like the last, has never had another attack, though five years have elapsed since the one now described. The tendency to cynanche tonsillaris, certainly seems to grow with its repetition in a severe form; and I have met with other instances besides these two, where an abrupt early cure seemed to break both the attack and the liability. The only objection, or rather obstacle, to this plan of cure is, that patients, unluckily, will seldom put themselves in the way of profiting by it; as the practitioner does not often see febrile sore throat, till the chief question he has to consider under the head of treatment is, whether an abscess in the tonsil is to be opened by nature or the lancet.

I have seen *febrile catarrh* quickly arrested in the same way in persons prone to it. But the circumstances have been so similar to those just described, that a detail of them here seems unnecessary.

Whether *acute rheumatism* may be also treated successfully by the like means, is a matter of doubt. At the period at which medical men generally first come in contact with a case of it, sweating by Dover's powder will not succeed singly. But this is a powerful and speedy measure, if immediately preceded by general blood-letting. Perhaps, then, the present topic would be better deferred, and taken up under the next head. But since it is the action of opium as a sudorific, which seems here the source of its curative influence, while in the third mode of using it for arresting acute inflammatory diseases this kind of action is not at all essential, the treatment of rheumatism will be more conveniently disposed of in the present place.

There are physicians of undoubted authority, who maintain that acute rheumatism can scarcely be cut short,—that, do what one may, the patient must endure towards three weeks of agony, and three weeks more of stiffness, weakness, and occasional aches. I am convinced, however, that, at least in young adults of sound constitution, a genuine acute attack may often be put an end to in a few days, by first drawing blood very freely to the approach of faintness, and then giving Dover's powder instantly afterwards in the way mentioned above for inflammatory sore throat. I have often observed, that after sweating has been thus brought out and kept steadily up for thirty-six or forty-eight hours, the pulse fell to the natural standard from nearly double that rate, the white, thickly-furred tongue began to clean, the pains and redness gave place to numbness and want of power, recovery went on afterwards swiftly and without interruption, and the patient was able to leave his bed in a week. The chief conditions for success are, that the bowels, previously opened if necessary, shall be let alone till the sweating is well over; that blood be drawn both largely and to approaching syncope; that the powders be given immediately afterwards, before the circulation recovers

its state of excitement, which it will otherwise soon do; that the treatment shall be enforced before the close of the fourth day, but earlier if possible; and that the case shall be real acute rheumatism, not one of the subacute form or gouty rheumatism, as it is called,—where for some days previously the local inflammation has been shifting from joint to joint, with irregularly intermitting fever. I have once or twice tried to do without the preliminary of blood-letting, but have not succeeded. In one instance, that of a stout young cabinet maker, copious sweating begun on the third day without blood-letting, and maintained for eight-and-forty hours, was of no avail; but when repeated after one free evacuation of blood, it put an end to the disease abruptly in the way just described.

3. The treatment of acute internal inflammations by opium after blood-letting is now currently used by some practitioners. But since, notwithstanding its efficacy, it is still not generally practised, it seems to need the support of further testimony than it has yet received from the few who have taken public notice of it.

This mode of cure consists in withdrawing blood very freely from the arm till faintness approaches, just as in the ordinary way of treating acute-inflammation,—and then giving a large opiate, with a view to bring on sleep or the calm reverie which in some people takes the place of sleep. The result is, that, on the patient awaking, the general fever and local inflammation are found to be subdued and broken,—generally at once, but sometimes not till the repetition of the practice in twelve or twenty-four hours.

The conditions for successfully employing opium after blood-letting are nearly the same with those for using Dover's powder in rheumatism. It is essential that the disease to be subdued be in its early stage; that a deep impression be made on it by blood being withdrawn both freely, and to the approach of faintness; and that the opium be given largely and immediately, so as to anticipate the renewal of reaction. Sweating sometimes ensues, but is not at all a necessary condition for success. The particular preparation of opium to be used, is perhaps of no great consequence. I prefer the solution of muriate of morphia, or, failing that, the sedative solution of Battley. The dose of the former should not be less than forty minims for an adult male, and for others in proportion; and the dose of Battley's solution, which is certainly not so strong as its maker represents, should not be less than twenty-five or thirty minims. Some conceive this treatment applicable only to inflammation of the membranous surfaces, not to that of parenchymatous textures. I do not know any positive facts either on one side or the other of this question; but the statement is doubtful, if it be meant to apply to acute parenchymatous inflammations in their early stage. If pneumonia be regarded as inflammation of a parenchymatous tissue,—which, although a common mode of viewing it, is rather incorrect,—then, there can be no doubt that in this particular instance the treatment is most effectual on many occasions.

Edinburgh Monthly Journal of Medical Science, Feb., 1841, *p.* 91.

18.—ON HÆMORRHAGE.

By Dr. WATSON, Lecturer on the Practice of Physic, King's College, London. &c., &c

When blood rushes out from internal parts, through any of the natural apertures of the body, the person is said and supposed to have *broken a blood vessel*. Yet this is rarely, though it is sometimes the case. In nine cases out of ten, if there be any rupture at all, it is rupture of numerous capillaries only: but even of this there is often no evidence.

Whence, then, and how does the blood escape from its natural channels?

Why, it exudes from the unbroken surfaces of organs, without any appreciable lesion of arteries, veins, or capillaries; just in the same manner as sweat oozes from the skin, mucous from the inner surface of the bowels, and serum or synovia from the membranes that respectively furnish those fluids; and probably by the very same outlets.

This certainly is a very remarkable circumstance, if it be true: and you will naturally ask what proof we have of its truth.

The proof is simple and conclusive. We examine the surface from which the blood must have proceeded, and we find it entire: we wash, and even macerate it; we employ the microscope to assist our powers of vision; yet we fail, after this careful inspection, to discover the slightest breach of substance, or any appearance of erosion.

We have absolute proof, therefore, that hæmorrhage may transude through an uninjured surface: nay, in some rare cases, the process has been actually witnessed. There are well authenticated instances on record of *cutaneous* hæmorrhage; where a dew of blood has appeared upon some portion of the skin, has been wiped away, and has reappeared: and that again and again, without any perceptible alteration of the affected surface, beyond some occasional variation in its colour. So again the menstrual discharge has been seen to issue *guttatim* from the healthy surface of the living and inverted uterus. But I confess, that although this analogical fact helps our conception of the manner in which blood may be exhaled from an unbroken membrane, I should not lay much stress upon it for any other purpose. It is not exactly a case in point. The process of menstruation cannot be looked upon as a morbid process. During a certain portion of the life of an unpregnant female, it is not only consistent with perfect health, but even essential to it, and the fluid poured out is not strictly blood.

When blood thus exudes, we say that the hæmorrhage takes place by *exhalation*. It is a convenient word, and will spare circumlocution. What the vessels or outlets to which we give the name of exhalants really are; whether they be branches from the capillaries not large enough in the natural state to admit the red particles, or whether they be mere pores in the sides of the capillaries; these are points concerning which we have no positive knowledge. We know, indeed, that such channels must exist, though we cannot demonstrate or see them; and we know that while every part of the body is in a state of health and integrity, they do not allow the blood, as such, to pass through them.

I must exclude, however, from this general statement one very important hæmorrhage. In the brain, the former exception becomes the rule. In almost all cases cerebral hæmorrhage results from a rupture of a blood vessel.

Is it in all cases of hæmorrhage proper or safe, to attempt to stop the bleeding?

Without going into detail, it may, I think, be laid down as a rule, that what I have called habitual hæmorrhages ought not to be interfered with, so long as they have no perceptible injurious influence upon the health, and so long as they proceed (as they mostly do) from parts, of which the *structure* is not likely to be spoiled, nor the *function* impaired, by the repeated passage of the blood. The most common seat of these habitual hæmorrhages I have stated to be the rectum; to which the two conditions just mentioned are, fortunately both of them applicable. Epistaxis supplies a less frequent example of the same kind. When they deviate from their usual channel, and are transferred (as it were) to some more important organ, it will generally be right, among other remedial measures, to endeavour to *recall* the original hæmorrhage. It is very seldom that the metastasis takes place *for the better*—i. e., from a part where the bleeding is attended with danger, to one where it is comparatively harmless.

However, when these habitual hæmorrhages happen, as they often do, in

plethoric persons; and when they are urged and kept up, as they frequently are, by intemperate and luxurious habits; we ought not to content ourselves with merely looking on. Hæmorrhois often performs the office of a safety-valve in such persons; and there are many who have what are called bleeding piles, and who would rather continue to have them, than submit to any change in their mode of life, or to the employment of other means of evacuation. Certainly these are cases in which nothing should be done to stop the bleeding: yet such patients ought to be told that the hæmorrhoidal discharge is but a precarious, and often an inadequate relief to the plethora; that while the plethora is suffered to exist there is danger of a cessation of the piles, and of the supervention of serious or fatal affections of other parts, and especially of the head. Apoplexy, or cerebral hæmorrhage, has frequently been known to follow hard upon the suspension of constitutional hæmorrhois. The patients should be admonished also that the discharge of blood from the vessels of the rectum may become excessive; that if it be aggravated by exercise, or in any other way, it may lead to inflammation about the anus, and to great inconvenience; and that there are safe and tolerably sure methods of getting rid of the plethora (which is what chiefly constitutes the danger of such cases,) if they will submit to the observance of them. It is in the intervals between the hæmorrhages that the danger of which they are in some sort the token, may best be met.

Of the actual remedies used for checking the farther escape of the blood, one of the most important has already been alluded to—I mean venesection. We are guilty of homœopathy in this matter: to prevent bleeding, we draw blood. After what was stated respecting the use of blood-letting in inflammation, I need not dwell upon the objects aimed at by this measure: they are briefly, to abate the vigour and force of the heart's contraction, to lessen general plethora when it exists, to remove local congestion, and to divert the current of the blood from the suffering organ.

Next to blood-letting, *astringents* constitute the great resource against actually existing hæmorrhage: and among these, *cold* is one of the chief. It may be placed in direct contact with the bleeding surface:—as when ice is *swallowed* to restrain hæmatemesis: or cold water injected into the rectum in excessive and exhausting hæmorrhois; or into the vagina, in flooding from the uterus. Or it may be applied to the surface of the body, as near as possible to the seat of the hæmorrhage; as to the nose and forehead in epistaxis; to the chest in hæmoptysis; to the epigastrium in hæmorrhage from the stomach; to the lower part of the abdomen or to the perinæum in hæmorrhage from the intestines, uterus, or urinary organs. But the influence of cold in constringing the smaller vessels is not confined to the part with which it is in contact; it will stop hæmorrhage by the sympathetic shrinking which it produces in distant parts. Epistaxis, for example, has often been arrested by the sudden apposition of cold water to the neck, back, or genital organs. The nursery remedy consists in slipping a cold key down the back between the clothes and the skin.

Dr. Watson's Lectures, Medical Gazette, Jan. 1, 1841, *p.* 529—536

[Dr. Watson makes no mention of ipecacuanha and other nauseating medicines in arresting hæmorrhage. A very interesting paper on the use of ipecacuanha will be found in our first number, by Mr. Trenor: and we can safely corroborate most of the statements therein made. Ipecacuanha will be found a safe and most efficacious remedy in most cases of internal hæmorrhage. It must be given in grain doses every half hour or every hour, till nausea is produced; and the patient should be kept in this state of nausea for some time. It has all or most of the good effects of venesection without its bad effects.]

19.—TREATMENT OF VARIOLA BY MERCURIAL APPLICATIONS.

By I. F. Olliffe, M.D., Paris.

[Various have been the methods to prevent the formation of cicatrices in small pox; but all have more or less failed. The methode ectrotique of Bretonneau was cauterization. He "pierced the summit of each pustule with a gold or silver needle charged with a small portion of lunar caustic in powder." M. Serres applied a strong solution of nitrate of silver, from 15 to 45 grains to the ounce, to the whole surface of the eruption. Dr. Picton, of New-Orleans, treated his patients by keeping them in complete darkness, and, as he states, with success. But mercury seems destined to supersede all other therapeutic agents in this malady. M. Serres and M. Biquet have been most successful in preventing cicatrization by the use of the plaster of vigo, composed according to the French pharmacopœia of the following:

Mercure	95 parties.
Styrax liquide	48
Emplatre simple	312
Cire, resine, terebinthine, aa	16
Gum ammoniac, bdellium, encens et myrrh, aa.	5
Safran	3
Esprit de lavande	2

M. Serres draws the following conclusions:]

1. The plaster of vigo cum mercurio produces a complete abortion of variolous pustules.

2. Diachylon, porphyrised charcoal, gum arabic in solution, and all other topics hitherto applied (with the exception of litharge,) with the intention of causing this abortion, have completely failed.

3. The abortion takes place, not only when the pustules are yet in a state of papulæ, but even when they are in full suppuration. (Here I must differ from M. Serres, for M. Briquet's researches prove that the appearance of the pustules in the suppurating state renders the effect of the mercury altogether void.)

4. The abortion takes place by a process totally different from that which is effected in *varioloid* affections. In the latter it is to be attributed to the prompt desiccation of the *vesicle*, whilst in variola the pimple does not open at all; no pus appears, no scales are formed: resorption is effected, and, consequently, no scar can possibly occur.

5, and lastly. The greater part of the body should be covered with the mercurial plaster.

Mercury as a topic, ought to be employed in all the varieties of small-pox, whether simple, confluent, or modified. Its effect is either to prevent the development of the pustules, or so to modify them that they become mere abortions. The whole face should be covered with a mask of the vigo plaster, merely leaving a space for the mouth, nostrils, and eyes. A little mercurial ointment is applied to the eyelids. By the application of these plasters, the exanthem either undergoes entire resolution, or is converted into *vesicles* or tubercles. The resolution is either primative or secondary. The former takes place when the eruption is still papular; so that the papulæ, which, without the application, would have passed into pustules, disappear completely under its influence. The plaster often, indeed generally, changes the nature of the eruption, by converting it into a vesicular or tubercular form. When it assumes the vesicular form, it differs little in appearance from herpes;—the vesicles contain a lymph-like serosity, and are surrounded by a light red areola; and a most remarkable circumstance is, that the skin between the isolated vesicles is pale, and never swollen and red, as it is in

small-pox. No *suppuration ever takes place.* A day or two after the removal of the plaster the vesicles dry up, without any desquamation; and as for cicatrices, M. Briquet has never seen any form after his treatment. He totally differs from M. Serres respecting the utility of the plaster when the eruption has become pustular. The plaster is allowed to remain for three days in simple small-pox and for four in confluent.

Friction, with mercurial ointment, may be substituted for the vigo plaster; and they are, in fact, quite as efficacious; but they must, as in all other cases, be performed before the eruption assumes the pustular form.

London Lancet, Feb. 6, 1841, p. 676.

It would appear from the experiments of Dr. Midaveine, that sulphur possesses the same efficacy as mercury in arresting the development of the small-pox pustule. Dr. M. employs an ointment composed of two to two and a half drachms of flour of sulphur to an ounce of lard, and with this rubs lightly, thrice a day, all parts of the body on which pustules exist. The nearer the pustules are to the period of their first appearance, the greater the chances of success; the papulæ then contract, become dry, and fade away. Even in confluent small-pox the patient quickly recovers his appetite, and asks for food. We should, however, remark that Dr. Midaveine employed the sulphur ointment in sixteen cases only, and of these twelve had been vaccinated.

Provincial Medical and Surgical Journal, April 24, 1841, p. 80.

[Gold-leaf is used for the same purpose by the Egyptians and Arabs as related by Baron Larrey. They cover the parts with gold-leaf as soon as the eruption makes its appearance. The Baron found almost a similar good effect from repeatedly anointing the face with almond oil. The account is as follows:]

On the employment of gold-leaf for the prevention of pitting in small-pox. Barron Larrey communicated to the Academy an interesting notice of a practice which was prevalent amongst the Egyptians and Arabs by which they prevented the unseemly scars produced on the exposed parts of the body by the suppurating of the small-pox pustules. The practice consisted in covering the exposed parts of the body, as the face, hands and feet, with gold leaf as soon as the eruption made its appearance.

M. Legrand bears testimony to the efficacy of the practice, having tried it in one case, which he relates. The patient was a beautiful English girl, who had a copious eruption of confluent small-pox. On the first day of the eruption the whole of the face was covered with the gold leaves, which were made to adhere by means of gum water. The application was renewed morning and evening so long as the suppurative fever continued; and when the cure was complete, not a pit or scar was left on the face where the gold-leaf had been applied. The hands, and the rest of the body which had not been thus protected, were deeply marked with the scars of the pustules.

Barron Larrey says that he has found nearly the same beneficial results to follow from the repeated anointing of the face of the person labouring under small-pox with almond oil; a practice which recommends itself from its cheapness and the facility of its application.

American Journal of Medical Science, February, 1840, p. 453.

20.—PURE TANNIN A REMEDY FOR EXCESSIVE PERSPIRATION.

By Dr. Charvet.

Sweating is a morbid symptom which is often so serious and inconvenient, that the practitioner is obliged to combat it by special remedies. The one-

tate of lead, which has been extolled of late years, sometimes causes inconveniences which hinder many practitioners from employing it in cases where its use seems clearly indicated. Pure tannin, employed as an anti-sudorific, appears to be free from these disadvantages. The author has employed it for two years at the hospital, and in his private practice, and though it has not succeeded in every case, it has in almost all.

He prescribes it in the form of pill, and in the dose of from two and a half to ten centigrammes (half a grain to two grains) in twenty-four hours, generally in the evening, with or without opium, which neither checks nor favours its action. The first time he administered it was in the case of a phthisical patient, who was already in a state of marasmus, and whose cough, fever, and oppressed breathing, were less troublesome than the general perspiration with which he was inundated every night. The patient asked for some medicine against the perspiration, which he considered the sole cause of his sufferings, and was ordered twenty-seven milligrammes (about three-fifths of a grain) of tannin. The next morning he said he had passed a good night, and hardly felt moist when he awoke. The repetition of the same dose every evening was sufficient, during several weeks, to suppress the perspirations entirely; but they returned as soon as the medicine was omitted. The dose was raised to five centigrammes (a grain,) and then to eight (one grain and three-fifths,) and always with the same success. The author relates several other cases in support of the antisudorific property which he attributes to tannin; they occurred among consumptive patients who had arrived at the last stage of the disease. They are additional examples of the activity with which tannin suppresses sweating, even when the disease from which it arises is beyond the resources of our art.

Medical Gazette, Nov. 27, 1840, p. 382.

21.—ON THE DETECTION OF ALBUMEN IN THE URINE.

By Dr. Rees.

[Dr. Rees was one of the first to show that coagulation of urine by heat alone is not a sufficient proof of the existence of albumen. He showed that it was necessary for nitric acid also to be present. Urine may contain albumen and yet not be coagulated by boiling, because of the presence of an alkali, and yet on the addition of nitric acid a copious precipitate may be produced. Both nitric acid and heat are therefore essential concomitants, in testing the presence of albumen. Dr. Rees proceeds in this paper to state:]

From what has been premised it is evident that a knowledge of the acid or alkaline condition of any given specimen of urine can in no way assist us in determining whether or not it contains albumen, by applying the test of heat alone, if a *positive* result be obtained; for the coagulum may be caused by the earthy phosphates, whether the urine be alkaline or acid; but the case is different when the result is *negative*, since acid urine never prevents the precipitation of albumen by heat, though alkaline urine may, and, therefore, a specimen, if shown to be acid, and not coagulable by heat, may safely be declared free from albumen. This fact, if borne in mind, will frequently save the practitioner much trouble, as it is not always convenient to carry nitric acid to the bedside of a patient.

Having stated the fallacies to which the test of boiling is subject, I shall proceed to those which render uncertain the indications afforded by nitric acid. It has been long known that where the lithates exist in urine in excess, that the addition of a small quantity of a mineral acid will occasion the deposit of lithic acid; but this is almost always of a brownish red colour, and

in no way simulates in form or character the precipitate of albumen as produced by nitric acid, and cannot well be mistaken for it. I mention the fact, however, as part of the history of the subject. Nitric acid is frequently used to discover whether the precipitate afforded by heat be albumen or not, by adding it to the still warm liquor containing the coagulum obtained by boiling. In these cases, even if the precipitate be albumen, it is occasionally lost sight of by the uninitiated experimenter, and supposed to be dissolved, though, in reality, it remains suspended. This mistake arises in one of two ways; either the flocculi (which generally become darkened or corrugated) are carried up into the froth occasioned by the effervescence which occurs on the addition of nitric acid to the heated urine or these corrugated flocculi (when the effervescence has not been so strong) remain in their altered condition in the fluid, and are entirely overlooked by a careless or hurried experimenter. I should not have mentioned these sources of error, which might naturally be considered improbable, but that I have more than once had occasion to observe their occurrence, and that too in the hands of practitioners not altogether unused to the test tube and spirit lamp. The last source of fallacy that I shall mention is one which has led to one of those loose unsupported assertions in which our profession abounds, and which have not failed to attack the important discovery of Dr. Bright, by declaring that albumen exists in many conditions besides in the form of diseased kidney which he has described. That this may be the case is certainly not quite impossible; but the facts which have as yet come under my observation, in support of such an opinion, have proved to be as imperfect as that to which I have above alluded, viz., that patients who take copaiba have always an albuminous condition of urine induced. This statement has, I presume, originated in the fact that when copaiba has been taken (and more especially in an alkaline vehicle) the urine becomes coagulable by nitric acid: at least I have found it so in four consecutive cases which I have examined, and the cloudiness produced bore a great resemblance to albumen, and might be easily mistaken for that pinciple. These specimens, however, were not coagulable by heat, and were acid—a fact which alone might have assured the observer that albumen was not present.

Medical Gazette, Dec. 11, 1840, *p.* 438.

22.—VACCINE CRUSTS, THE MOST EFFECTUAL PACKAGES FOR VACCINE VIRUS.

[The following facts will be more especially interesting to medical men, who reside in warm climates. To all, indeed, it will be interesting. The first quotation is from Dr. Epps' Medical Director of the Royal Jennerian and London Vaccine Institution, who states:]

The vaccine pock is similar to the *vitreous* humour occupying the largest chamber of the eye. It is a compages of vessels with their contained fluid. The *aqueous* humour of the eye escapes by a single puncture, like the virus and vaccine pock: hence the indurated pock, the scab or crust of the vaccine pock, contains the dried matter in its cells, which, being broken down, and moistened with the wetted point of the lancet, has been found effective in hot climates, when attempts to preserve the vaccine ichor, in other forms have failed. The crusts or scabs we have been able to collect in this country we learn by letters from the East and West Indies, have withstood the heat of their vertical sun, and spread protection through the plantations, and the surrounding districts.

N. B.—These crusts, when levigated and moistened, and worked into a fine pulp, have been used by many practitioners in tropical climates with the

most signal success. Mr. Johnstone, the late secretary of the Institution, was the first who suggested this plan.

[Then follows a letter from M. Merguera, connected with the embassy of New-Granada. He says:]

Knowing that you will feel pleasure in witnessing the results, in the Republic of New-Granada, from the different kinds of pus destined to preserve from the small pox, which your institution had the kindness to transmit to me last year, and which I transmitted forthwith to my government, I have pleasure in transmitting to you the information I have received.

In the Month of March, 1840, an epidemic small-pox broke out in the city of Popayan and in the province, and continued even till August. The matter, forwarded upon my application to you, was immediately employed, and the following are the remarks connected with its use:—

The trials, made with the *pus contained between glasses*, and with that attached to the *ivory points*, were *unattended* with *any good effect;* but the case was different with the *crusts*. These, broken down, (see above) produced the most happy results, and realised pustules having the character of the true vaccine. Great numbers were vaccinated with these, so prepared, in Popayan, and *all with effect;* and this beneficial remedy is now adopted with efficacy every where.

It is necessary to add, that *a* vaccine pus, which *already existed at Popayan*, produced pustules, but it did *not* produce pustules having the good characteristics which were presented by the pustules in question, &c., &c.

Towards the end of July, upwards of six hundred individuals had been vaccinated; and although these were continually in contact with those affected with small-pox, not one took the contagion, &c., &c.

London Lancet, March 13, 1841, *p.* 848.

23.—HYDRIODATE OF POTASS AND SARSAPARILLA IN CHRONIC RHEUMATISM.

By James Heygate, M.D., M.R.C.S.

Physician to the Derbyshire General Infirmary.

[We give the following case, chiefly because it confirms the value of Dr. Graves' use of the same means in similar cases, as given in the second number of our Retrospect.]

Elizabeth Holmes, ætat. 43, admitted in-patient Aug. 21st, 1837. Pain, with loss of power in the lower extremities; knee-joints much swollen, and have been so for many months, with inability to stand; pulse quick, tongue clean, bowels confined. She says various means have been used, but hitherto without any effect.

℞. Hydriodate of Potass, gr. vj.;
Compound Decoction of Sarsaparilla, ℥ij.

To be taken three times a day; and a pill, composed of extract of rhubarb, extract of conium, and blue pill, of each two grains every night.

23. The same. A vapour-bath to be used every other day, and the turpentine liniment to be applied to the limbs.

28. Improving. Increase the Hydriodate of Potass to eight grains.

30. The medicine agrees very well; the joints not so stiff, less painful, and less swollen. To have crutches.

Sept. 6. Limbs more pliable. Increase the Hydriodate of Potass to ten grains, and substitute the camphor liniment for the turpentine.

23. Has continued improving since last report. Increase the hydriodat. of potass to fifteen grains.

27. Gums slightly turgid. Omit the pills.

30. Joints reduced to almost the natural size. Can now walk about tolerably well. To be made an out-patient, and gradually leave off the medicine.

London Lancet, March 6, 1841, p. 839.

[Several other illustrations of the value of this compound are given by Dr. Heygate, as, "Secondary Syphilis," some, "Severe affections of the wrist joint, "and, "Neuralgic affections of the loins with loss of power in the lower extremities."]

24.—TREATMENT OF GOUTY CONCRETIONS WITH BENZOIC ACID.

By Alexander Ure, Esq.

[This paper was read before the Royal Medical and Chirurgical Society. The substance of it is as follows.]

The author's intention, in the few remarks contained in this paper, is to introduce to the profession a remedy, which he believes to be likely to prevent the formation of tophous concretions in gouty subjects. The remedy is benzoic acid, administered in doses of a scruple, an hour after a meal. "In the course of a couple of hours (as the author has found by frequent experiments, made upon himself and others), the urine voided, amounting to five or six ounces, will be found on adding a small quantity of muriatic acid, to yield a copious precipitate of beautiful rose pink acicular crystals, which weigh, after being allowed to settle for a day, fifteen grains." The body thus produced by the agency of vital chemistry is hippuric acid, and is found to have taken the place of uric acid in the urine, none of the latter being discoverable.

By thus substituting hippurate of soda, a salt of easy solubility, for the very sparingly soluble urate of that alkali, the author conceives that the formation of the tophous concretions may be altogether prevented.

Mr. Ure stated, in answer to questions, that he had employed the plan recommended in his paper in two or three cases with decided success. He had not found the dose, twenty grains, to be at all too large, and had frequently taken it himself without any unpleasant effects.

Mr. Coulson thought the quantity of benzoic acid, mentioned by Mr Ure, too large a dose to exhibit, or, at least, to commence with; he was occasionally in the habit of giving this medicine in purulent secretion from the kidney, for which affection it was a most valuable remedy, but he never began with a larger dose than three or four grains.

Dr. Kingston remarked, that the class of remedies to which that recommended by Dr. Ure belonged was one of much importance. Gouty persons were liable to concretions, not only in the joints and bursæ, but also in internal organs; the obstruction of which, if not more inconvenient, was far more prejudicial to life; as, for instance, the aorta and valves of the heart. Independently, also, of gout, there was a calcareous diathesis, under the influence of which he had often known a great number of organs at once occupied by concretions, extensively encroaching on their structure. If concretions of the joints and bursæ could be removed by one chemical remedy, we might hope to find some other of this class capable of removing the internal calculi.

25.—TREATMENT OF ACUTE RHEUMATISM WITH CINCHONA BARK.

By Dr. D. Davis, Professor of Midwifery in University College, London.

[Dr. Davis first traces the history of the use of this remedy, employed by former celebrated practitioners, as Morton, Hulse, Fothergill and Haygarth. He then shews the almost complete modern neglect of the remedy, and endeavours to impress upon his readers its value in cases of acute rheumatism; many of which cases, he thinks, bear great resemblance to ague. With respect to this treatment, he says :]

I have adopted it during the greater part of my professional life; and as it has seldom happened that I had ever occasion to prescribe it, except at an early period of acute rheumatism, I have great satisfaction in assuring the readers of The Lancet that I do not remember a case in which the disease was not happily subdued. I have often recommended it in cases of pure arthritic rheumatism during its acutest stage, and the disease has always yielded to the remedy; and I have also recommended it in violent pains of the joints, accompanied by alarming complications, but never in any one case injuriously to the interest of my patient. I have, therefore, no difficulty in recommending its adoption to my medical brethren, and especially to those who are most frequently favoured with the opportunities of seeing acute rheumatism in its earliest stages. From what I have already written upon the subject, I think it will be considered that its employment should, in every case, be anticipated by free abstraction of blood, as well as by the other important evacuations previously recommended to be resorted to. In a few cases it may be necessary to repeat such bleedings and other evacuations more than once; but I must own, that such a necessity has not often occurred within my experience. I feel myself entitled once more to repeat my confident assertion, that I consider the Peruvian bark the most powerful remedy that can be employed in an incipient case of acute rheumatism. Without exceptions in my practice, it has uniformly produced the most salutary effects. The pains, swellings, perspiration, and other symptoms of inflammatory fever manifestly and speedily abate, and gradually cease, till health is perfectly restored. Before I conclude I beg to repeat, that the measure of bark which it has been my practice to recommend for the disease under consideration, has varied between a scruple and half a drachm, repeated three or four times daily.

London Lancet, Feb. 13th, 1841, *p.* 722.

26.—TREATMENT OF DIARRHŒA IN INFANTS.

By M. Trousseau.

In the diarrhœa to which infants are often subject, when unaccompanied by fever or other signs of inflammatory action, M. Trousseau recommends the following enema:—nitrate of silver, one to three grains; water, twelve and a half ounces. Or the nitrate of silver may be given in solution, thus:—nitrate of silver, one to two-fifths of a grain; water, thirty scruples; simple syrup, thirty scruples. Five or six tea spoonfuls to be taken in the twenty-four hours.

Provincial Medical and Surgical Journal, Jan. 9, 1841, *p.* 255.

27.—ILEUS CURED BY INJECTION OF AIR.

A dragoon was seized with violent colic and symptoms of intense enteritis. An antiphlogistic treatment was employed without any benefit. The bowels

soon became obstinately constipated, and he vomited stercoraceous matter; some mechanical obstacle was now supposed to exist. A quantity of air was thrown up the anus, and as soon as the intestines became well distended, a copious evacuation of solid fæces took place. This was soon followed by other stools; the vomiting now ceased, and the man quickly recovered.—*Med. Zeit.*, No. 35.

Provincial Medical and Surgical Journal January 16, 1841, *p.* 258.

28.—ON FUNCTIONAL DERANGEMENT OF THE HEART IN GROWING PERSONS.

By Dr. Corrigan, Lecturer on the Practice of Medicine; Physician to Jervis-street Hospital, &c.

This affection is met with in both sexes; but we are most often consulted about it occurring in boys, probably from their active exercises rendering the attacks more observable.

The boy, often taken home from school from the alarms caused by it, has observed that an attack of palpitation has occurred when out walking, or exercising with the other boys. In some instances, although not common, the first attack has occurred at night. The attacks gradually become frequent, and at last so violent, that he is obliged to abstain from exercising, or if exercising is forced to sit down. These attacks are renewed whenever he attempts a repetition of exercise, and at the last he dreads even walking. He is now prevented from joining his companions in their sports; this preys on his spirits, and after confinement in his study, or sedentary occupation at his desk, very slight exercise, sudden rising even from a chair is now sufficient to bring on an attack, and take away his breath. The attacks then begin to come on at night, or in lying down; or are produced even by any change of posture. In some of those cases there is a disposition to bleed from the nose, and the hæmorrhage is occasionally very profuse, and this, coupled with pain of the side, which is occasionally present, leads to a treatment not calculated to amend the symptoms. The boy is denied animal food. He is sent to the infirmary of the school, and given tartar emetic and bled, or lowered in other ways by purgative or nauseating medicine. He is at last sent home, and the physician then sees him a boy very tall, or small and slight for his age, with little development of trunk, narrow chested, and with long thin arms and legs; and he is generally slightly bowed in the shoulders from some bending forward of the spine. The pulse has become habitually quick, beating, probably, one hundred and twenty or one hundred and thirty in the minute; and on laying the hand over the region of the heart, the first impression made on the examiner is, that there is great hypertrophy of the left ventricle, as it is felt thumping over a large space, and apparently with great strength. A little further examination will, however, shew that this is a deception arising from a combination of causes. The contraction of the ventricle is *quick*, and hence the impression of it gives a more palpable impression to the hand than a contraction of equal strength, but slower. The chest being generally narrowed, or drawn in, the heart, as in females, lies with greater extent of surface close to the ribs, and the hand of the observer feels necessarily the impulse over a larger space; and as this space increases, the hand laid over it will receive a corresponding increase of impulse, even though the strength of the organ be not increased, just as the hand laid over the large sac of an aneurism will, from increased extent of surface, receive a corresponding increase of impulse, even though the active force distending the sac is not greater than that exerted on a neighbouring artery, which gives an impulse immeasurably less to the perception of the observer. The deceptive sensation produced on the hand, when the heart gives a large extent of sur-

face of impulse, is very likely, if its cause be not remembered, at once to make the practitioner suppose, in such a case as that described here, that he has to deal with a greatly enlarged and powerfully acting heart, when the organ is really the very opposite of this as to strength of muscular fibre. It is, I believe, as a general rule in such cases, safer and better to judge of the strength of the heart by the force of the blood impelled by it than by any indication of its state supposed to be furnished by auscultation of its action. It is, I believe, also more rational to judge of the power with which the organ acts, (except in obstructions of its orifices,) by feeling the force of the fluid sent out by it along the main trunks, than by drawing an opinion from degrees of intensity of sounds and impulse, on which, perhaps, no two observers will agree. It is more reasonable to judge of the strength of the action by the momentum of the propulsion than by the recoil of the organ, or the noise of its action.

There is in some of those cases a curious circumstance observable; the boy who cannot run or walk a hundred yards without palpitation, will swim for a very long time without being in the least incommoded by the action of the heart, probably from the spinal muscles not being disturbed with the weight of the trunk in the latter exercise; but whatever the cause, the occurrence is useful as an aid to our diagnosis.

[The treatment consists in diminishing the nervous irritability of the patient, and in restoring the tone to the constitution, by sea air, sea bathing, and full diet, with the different preparations of iron. The treatment of case 2 is described as follows:]

He got three drops of hydrocyanic acid every night in ʒi. mist. camph. and half a grain of sulph. quin. ter in die. The palpitations were rapidly relieved, but not removed. He was put upon full diet and wine, and in the course of the summer he recovered; the palpitations gradually wearing out.

Dublin Journal of Medical Science, March 1, 1841, *p.* 61.

29.—THE USE OF PITCH IN PILES.

Dr. Wardleworth assures us that he has used this remedy with advantage in many cases, both of external and internal piles. His usual formula consists in ordering 3½ grains of pitch to be made into pills, two of which are to be taken every evening. The well-known efficacy of balsamic remedies in piles may perhaps serve to recommend these pitch-pills.

Medical Gazette, Jan. 8, 1841, *p.* 588.

30.—ON PURGATIVES IN INFLAMMATION OF THE BRAIN AND ITS MEMBRANES.

By Dr. Watson, Lecturer on the Practice of Physic, King's College, &c.

[Bleeding and the application of cold to the head are so well known and valued in inflammation of the brain and its membranes that we need hardly mention them. The use of strong and continued purgatives is perhaps as well known but not so regularly adopted. We therefore, give Dr. Watson's and Dr. Abercrombie's recommendation of this practice in the following observations taken from Dr. Watson's interesting lectures now being published in the Medical Gazette.]

The third remedy which I named, that is to say, purging, is also of great importance and efficacy. But it must be *hard* purging. There is a great

tendency to obstinate constipation in most cases; and this must be overcome, and free and frequent evacuations from the bowels obtained: five grains of calomel and fifteen of jalap should be followed in three or four hours by a strong black dose; and after that I should give, in such cases, three or four grains of calomel every four hours, and repeat the black dose at least every morning, until the symptoms gave way. If the mercury thus exhibited affects the gums, so much the better; but we must not, in this disease, combine it with opium, to prevent its passing off by the bowels. Dr. Abercrombie uses this strong language in reference to the value of purgative medicines in acute inflammation of the brain. "In all forms of the disease active purging appears to be the remedy from which we find the most satisfactory results; and although blood-letting is never to be neglected in the earlier stages of the disease, my own experience is that more recoveries from head affections of the most alarming aspect take place under the use of very strong purging than under any other mode of treatment. In most of these cases, indeed, full and repeated bleeding had been previously employed, but without any apparent effect in arresting the symptoms." He has found the croton oil the most convenient medicine for this purpose.

Dr. Abercrombie is disposed to regard mercury as being useful in affections of the brain, chiefly in virtue of its purgative operation: and the opinions of a physician of his large experience, and observing mind, must and ought to have great weight. But I must not conceal from you my own persuasion that, in the early periods of acute inflammation of the encephalon (and it is of the early periods that I have hitherto been speaking,) if the mercury comes in a short time to produce its specific influence on the gums, a great change for the better will often be perceived; such is the result of my own observation. Recollect, however, that you are not to give calomel with the direct object of affecting the gums, but as part of the purgative plan, and you take the chance of its specific effect. You must not combine opium with it, for two reasons; first, you would thereby shut up the bowels, and deprive yourself of the use of one of your best weapons; and, secondly, you would incur the risk of augmenting and perplexing your patient's head symptoms, and of puzzling yourself; since you would not be able to determine how much of the coma that ensued was owing to the progress of the disease, how much to your remedy.

Medical Gazette, February 26, 1841, p. 820.

31.—BURNT RHUBARB IN DIARRHŒA.

By F. P. Hoblyn, Esq., Middlesex Hospital.

It may be useful to the profession to know the value of burnt rhubarb in diarrhœa. I have used it for seven years, and found it more serviceable in the diarrhœa, attendant on the last stage of consumption, than the chalk-mixture and opium, or any other of the usual remedies.

I have known it used, with the same pleasing effects, for more than twenty years, in incidental diarrhœas. After one or two doses, the pains quickly subside, and the bowels return to their natural state. The dose is from five to ten grains.

The manner of preparing it is to burn the rhubarb powder in an iron crucible, stirring it until it is blackened; then smother it in a covered jar.

It loses two-thirds of its weight by the incineration. It is nearly tasteless. In no one case where I have known it given has it failed. I have given it in port wine, milk, and water.

London Lancet, Feb. 27, 1841, p. 790.

32.—COMPRESSION OF THE CAROTIDS IN CONVULSIVE AFFECTIONS.

By M. Stroehlin.

[From time to time we hear of the employment of the above means in certain cerebral affections. Still, however, it is very little practised. The following cases illustrate the method of treatment.]

"I have sometimes, says M. Stroehlin, employed compression of the carotids in hysteric convulsions, and I almost always succeeded in modifying the form of the attack." The author adds the history of two cases of epilepsy, well characterised where the employment of this means was followed by similar success. The first of these cases was that of a man 24 years of age, strong and vigorous, who had been subject to epileptic attacks for 5 years, and which were of daily occurrence, sometimes lasting two hours, and very violent; the compression of the carotids at the commencement of the attack always caused them to cease a minute afterwards. The second case was that of a young person 15 years of age, epileptic from infancy, occurring every second day, and of six hours duration. The convulsions were confined to the right side of the face and the upper extremity of the same side. In this case he only compressed the left carotid, and the success was equally marked as in the former. It is necessary, adds M. Stroehlin, that the compression should be as circumscribed as possible, so that the returning current in the jugular vein be not interfered with. M. Stroehlin refers to cases where ligature of the carotid has been applied for the cure of epilepsy, for tumors of the face, for wounds of the artery itself; in which latter case the patient had been previously epileptic, but when the operation was concluded the convulsive affection disappeared.

Archives General, de Med., March 1841, *p.* 349.

33.—ON THE EMPLOYMENT OF PLATINUM.

By Dr. Hoefer.

Physiological action.—On dogs and rabbits of ordinary size, the perchloride and chloride of platinum and sodium produce death in several hours; on man, when any part of the body is rubbed with a concentrated solution of perchloride of platinum, there is experienced in two or three minutes great itching in the part rubbed. The skin, coloured yellow by the application, soon exhibits red patches which disappear in a few minutes. Water will remove the yellow stain, as the epidermis is not destroyed; when taken internally it causes sensations of heat and weight at the epigastrium, occiptal headache, constriction of the throat sufficient to affect the voice and swallowing, nausea and attempt to vomit. The symptoms increase for a few minutes but disappear in the space of half an hour. The chloride of platinum and sodium has no effect upon the skin, and its internal action is less than the perchloride of platinum; it appears to augment the urinary secretion.

Therapeutic action.—The perchloride is to be regarded as an efficacious remedy in syphilis, especially of a chronic form. The chloride of platinum and sodium is more applicable to the recent forms of the disease. It is equally efficacious in rheumatic affections. Platinum must be ranked amongst the alteratives along with gold, arsenic and iodine. It differs from mercury in producing previous excitement of the system; and it does not cause the same serious accidents which often follow the use of that drug.

Jour. des Connais. Med. Chir. Jan. 1841, *p.* 39.

34.—PECULIAR MODE OF GIVING MERCURY IN CHRONIC HYDROCEPHALUS.

By Dr. Watson, Lecturer on the Practice of Physic, King's College.

An apothecary of considerable experience—now dead—once took the pains to write out and send me the particulars of two cases in which he had seen a peculiar mode of administering mercury successfully. I will give you them nearly in his own words.

He had a lad, fourteen years old, whose name was Scott, under his care, with chronic hydrocephalus, in the year 1817. He had been ill two or three years. He was nearly blind, had very little use of his lower extremities, and could not walk across the room without support. He suffered violent pains in his head, and was unable to bear the least pressure on his scalp. His bowels were constipated, and his pulse "oppressed." Cupping and blistering, and the blue pill, and drastic purgatives, and ordinary diuretics, tried in combination and succession, gave him temporary relief; but no permanent benefit was obtained. Dr. Gower then suggested a plan which he had himself found successful in such cases, and which had first been used by Dr. Carmichael Smyth, who had recorded ten cases of recovery under its adoption. Dr. Gower's plan was to rub down ten grains of crude mercury with about a scruple of manna, and five grains of *fresh* squills; this was to be one dose; and it was to be repeated every eight hours.

My informant rubbed the quicksilver down with conserve of roses and then added the fresh squills, making the whole into the consistence proper for pills, with liquorice powder. The patient took this dose three times a day, for nearly three weeks, without any ptyalism being produced. Its effects were great prostration of strength, and loss of flesh, with gradual relief of all the boy's sufferings. It operated profusely by the kidneys. The medicine was continued twice a day, and at length once, for another fortnight; when all the symptoms of the disease had disappeared. The boy was greatly emaciated; he was then ordered an ounce and a half of Griffiths' mixture thrice daily; and soon regained his health and strength, and got quite well. And he remained well eight years afterwards.

The success obtained in this case led to the pursuance of a similar course in that of the son of a well-known fishmonger in Old Bond-Street. He was about twelve years old, and afflicted in nearly the same manner as Scott, except that the pain in the head was more acute, and caused violent screaming; *relief* had been repeatedly given for a time, by cupping. The physician in attendance was unwilling to try the plan, when it was proposed to him, but said that he would give what was equivalent—small doses of blue pill, with squills in powder. The result was salivation in a few days, without any amendment. In about three weeks, the effects of the mercury having subsided, and the patient then suffering extreme pain in the head, loss of sight, and want of power over the lower extremities, my informant was desired to adopt any measure he thought fitting. The medicine was given as in the former case, and with the same happy consequence; it acted, as before, without producing ptyalism, but with a great reduction of strength and flesh: health was restored by steel, after the symptoms of hydrocephalus had disappeared. This cure also was permanent.

Dr. Watson's Lectures, Medical Gazette, March 26, 1841, p. 1.

35.—ON SECLUSION, AS EMPLOYED AT HANWELL, IN THE TREATMENT OF THE INSANE.

By Dr. Conolly, Resident Physician.

["Among the numerous misrepresentations that have gone abroad respecting the admirable improvements introduced into Hanwell by Dr. Conolly, there has been none greater than that which has converted the temporary and occasional seclusion of violent patients into an habitual system of restraint and punishment as severe and objectionable as the practices he has abolished. In order to expose the utter inaccuracy of such statements, we lay before our readers the section on Seclusion, from the Report recently presented by Dr. Conolly to the county magistrates; and we can testify from personal knowledge of the proceedings at Hanwell, that the practice of the Asylum is in strict accordance with the principles there laid down:"]

Seclusion. All the substitutes for restraint are, like restraint itself, liable to be abused; but none can be made such instruments of cruelty by abuse. All are also liable to great misrepresentation: and none more so than that which is of all the most useful, the most simple, and the most approved of by the highest medical authorities: namely, seclusion. By seclusion is meant, temporary protection of the maniac from the ordinary stimuli acting upon the senses in the refractory wards of a lunatic asylum. He is abrtracted from noise; from the spectacle of a crowd of lunatics; from meeting those who are almost as violent as himself; and from every object likely to add to his irritation. But the mode in which seclusion is effected is also important to securing the benefits of it. If resorted to with violence, if accompanied with expressions of anger or contempt, if stigmatised as a punishment, and if followed by neglect, it may produce all the evil moral effects of restraint itself. If injudiciously persevered in, in very recent cases, it exasperates instead of calming. The patient requires freedom of action; is relieved by strong muscular exercise; and this should be provided for by such a subdivision of airing courts as would leave one for the occasional use of a single patient, at least for a few hours in the day. After being indulged in active voluntary exercise for an hour, two honrs, or such period as may seem desirable, the patient should be secluded. Calmness and sleep will sometimes follow; or sufficient tranquillity to enable the attendants and officers to talk to the patients with effect.

Under the system of restraints, when a patient became noisy and violent, and particularly when some mischief had been committed by him, it was considered necessary, and it was the usual practice, to overpower him, and to put him in some kind of straight waist-coat. This was done with great difficulty, and with much danger to the attendants. Observation has convinced the resident physician that this was a useless, and even hurtful mode of management. It was like endeavouring to smother a fierce fire by heaping very combustible materials upon it. A maniac in the midst of his paroxysm, like a man in a violent fit of passion, should be interfered with as little as possible. The violence, which if met by violence will become still more aggravated, will often, if left to itself, subside even in the course of five or ten minutes. Whatever the duration of the violent accession, its continuance is a bar to any thing but such management as protects the patient and those about him. It is in intervals of calmness that the foundations of moral treatment must be laid, and the confidence of the patient gained. To acquire this confidence, is the key-stone of all moral treatment; and nothing will so much oppose its acquisition as brutal or even impatient usage during the paroxysm.

In the meantime supposing the violent state to continue, the other patients should be removed from the neighbourhood of the one who is excited;

all obvious means of mischief should be guarded against; and the attendants, although not directly interfering, should be watchful and ready. A soothing word now and then, or something new to attract the attention, may be admissible; but all with discretion. Supposing, as must often happen, that the violent fit does not immediately subside, and that the patient continues to vociferate, to swear, to abuse and threaten those about him, and to endeavour to strike them, something more must be done. But in this condition the worst thing that can be done is to struggle violently with him, to overpower him, and to mortify him by putting on bodily restraint. The only reasonable object of any treatment is to tranquillize the violent man: and of all modes of effecting this, surely violence is the most unreasonable. Seclusion effects the object more certainly than restraint, and without any violence at all. A lunatic is seldom, even in his most raving fits, insensible to what is said to him: and he will often show, among his wildest and most extravagant expressions, that he is watchful of the conduct of those about him; and when the ordinary observer would expect nothing from him but what indicated savage fury, those who are patient with him, and who, regardless of his wildness, continue to indicate their kind feelings towards him, will find that sometimes his voice falters, and his eyes fill with tears. These symptoms of emotion are very transient; but they show that the sensibilities are not quite suppressed; and they warn the practitioner, in language that ought not to be disregarded, to abstain from everything which can further wound or oppress the feelings of an almost ruined mind. These circumstances are now mentioned as bearing upon the manner in which the seclusion of a violent patient should be effected.

Three or four attendants, possessed with courage and good temper, should surround him; and telling him that he would be much better if quiet, and in his own room, should endeavour, by gentle occasional efforts, to induce him to walk into it. It will sometimes be found, that although he protests loudly against the measure, his steps gradually proceed in the direction required. At the same time steadiness and strength may be required to prevent his retrograding; but well-qualified attendants will not on this account resort to violence. If he strikes or kicks them, they must of course effect their purpose as speedily as possible, and with steadiness, and even with force; but always without passion. As soon as the patient is thus placed in his room, he is not unfrequently found to become quiet; or if he continues to talk loudly it is not for a long period. In all probability he will soon lie down on his bed, and go to sleep. If he continues violent, he is at all events out of harm's way. He will very seldom attempt to hurt himself; and he can hurt no one else. The window of his room should in all cases be secured by an efficient shutter and lock. The bedstead, which should be of wood, should be fastened to the floor, and remote from the window. Sufficient light should be admitted through holes made in the window-shutter to enable the attendants, by looking through the inspection plate in the door, frequently to ascertain the state of the patient.

The abuse to which this seclusion is liable is that of being too prolonged. A troublesome patient being once locked up, it is natural that the attendants should have no very anxious desire to let him out; but if the superintendent is assisted by officers of proper activity, this abuse should be impossible. The seclusion should in all cases be immediately reported; and after two or three hours, some officers of the asylum should visit the patient, or at least look at him through the inspection-plate, so as to judge of the propriety of the seclusion being continued or put at an end to. This should be done with great circumspection. If even the cover of the inspection-plate is moved roughly and noisily, the patient is roused and irritated. Still greater mischief may be done by prematurely going into his room. A daily report should be made to the superintendent of the patients who have been in se-

clusion, and the number of hours they have been secluded. It is impossible to lay down rules for the general length of seclusion; three hours, two hours, or one hour, in many cases answer every purpose. In other instances, after four or five hours, although the patient should be brought out, and a trial given of his capacity to behave well, it is not found practicable to have him at large among the other patients; and it is better to keep him in his room till the next day. Many patients liable to periodical excitement, and especially females, are far more comfortable if kept in seclusion during the whole period of their excitement.

British and Foreign Medical Review, April, 1841, *p.* 546.

36.—NEURALGIA TREATED WITH ACUPUNCTURATION.

By Professor Riberi, Turin.

[Several cases of this troublesome disease are related, in which acupuncturation was beneficial. We give the following case as an example; and refer the reader to the other cases related in the Medico-Chirurgical Review, viz., sacro-lumbar neuralgia, severe brachial-neuralgia, lumbo, sciatic, neuralgia, and painful paralysis of the limbs.]

Neuralgia of the Foot.—A young woman, when 22 years of age, became affected with a most excruciating pain in the right foot, which had occasionally swollen and apparently highly congested. She was repeatedly bled and the foot was frequently leeched; but without effect. For ten months she was obliged to keep her bed. When admitted into the clinical wards of the Turin Hospital under the care of Professor *Riberi*, the seat of the pains and swelling was on the outer side of the foot; from this point the pains extended up along the leg, and the swelling affected the entire *dorsum* of the foot. Whenever the foot was lowered even a few lines below the horizontal level, the sufferings were much increased, and the same result followed the mere pinching of the skin. The "point de depart" of the pain was manifestly in the nerves of the foot. Antiphlogistic remedies were tried at first; but although the constitutional health, which had began to suffer, was considerably improved under their use, there was no relief of the local neuropathy. *M. Riberi* then tried acupuncturation: ten needles were inserted in the flesh, and allowed to remain in for the space of an hour. The operation was repeated four or five days afterwards, and subsequently at seven different times. The second time, the needles were left in for two hours; then for three, four, and even five hours. From the date of the first operation, the pains were so much relieved that the patient could rest on the affected foot, and in the course of a month she was able to leave her bed and walk about, her sufferings having entirely ceased.

Medico-Chirurgical Review, April, 1841, *p.* 501.

37.—TREATMENT OF DELIRIUM TREMENS.

By Dr. Ware, Boston, North-America.

All these cases were free from combination with acute disease, with one exception; in this there was inflamation of the arachnoid membrane of the brain, as determined by dissection. This was fatal. Four patients were bled and all of them recovered. Of the whole number, twenty-nine, one died.

The results of the different methods of treatment will be more readily compared, if they are thrown together into a tabular form:

Treatment.	No. of Cases.	Bled.	Died.	Recovered.	Complicated with Acute Disease.
Opii large doses	8		4	4	1
" small "	7	1	2	5	1
Emetics,	12	1	1	11	2
Bleeding,	2	2		2	
Eclectic,	9	5	3	6	7
Quinine,	1			1	1
Mercurials,	1			1	
Expectant,	29	4	1	28	1
	69	13	11	58	13

It appears, that of fifteen cases in which opium constituted the principal remedy, six died; whilst of fifty-four in which opium was not used at all, or only incidentally in small quantities, only five died. Still further, if we separate from these fifty-four, the nine cases in which the treatment was eclectic, and in which the mortality seems to have arisen from the combination of acute disease, we have a remainder of forty-five cases, of which only two were fatal. Again, if we compare the mortality of those cases in which opium was pushed to the full extent advised by writers on this disease, with those in which no active remedy was employed, we have a mortality of one in two, against a mortality of only one in twenty-nine.

This difference in the results of treatment would seem altogether too great to be attributed to accident, and goes far to establish the truth of the opinion formerly expressed, that opium given in large doses is actually injurious to patients labouring under delirium tremens. But even admitting it to be possible, that the great proportion of fatal cases occurring where opium was used was accidental, it certainly, I think, will not be contended, that the favourable termination of the cases not treated by opium, was also owing to accident. And it will certainly follow, that opium, if not actually injurious to these patients, is at least useless, and that our success in this disease will be sufficiently satisfactory without it.

The examination which has been made of these cases, has led me to the notice of some other circumstances relating to the history of delirium tremens, which it may be worth while to record.

And first, it appears, that a case of this disease is not often fatal, unless some other affection is present, which is in itself dangerous, and liable, even without its complication with delirium tremens, to prove fatal. Of the eleven fatal cases above recorded, seven or eight were of this character. It is not, however, always in our power to be certain of the existence of such a combination, since the effect of the delirium is to absorb or overshadow whatever other affection may co-exist, and thus to obscure its symptoms and prevent us from recognising its presence. It may have been possible, therefore, that in the other fatal cases where no such combination was apparent, it may have existed. But it is still worthy of remark, that of the fatal cases occurring among patients who were presumed to be free from any such combination, two, if not three, were of those subjected to the full opium practice.

Dublin Journal of Medical Science, Jan., 1841, *p.* 505.

38.—THE USE OF THE GUM-ELASTIC TUBE IN EXTREME ABDOMINAL DISTENSION.

By Daniel Donovan, M.D., Skibbereen.

[By referring to our first number, the reader will find a very interesting account of Dr. J. O'Beirne's employment of the rectal tube in strangulated hernia, by Mr. Maunder. Dr. Donovan relates the following interesting case which beautifully confirms the account there given. He says:]

I was sent for on the 4th of October, 1840, to see the Rev. Mr. G——. About three days before, after being exposed to the combined influence of cold, great bodily exertion, and febrile miasm—he was attacked with severe rigors, and continued since then unwell. His symptoms, when I first saw him, were intense pains in the head—flushed countenance, and increased heat of skin—his pulse, at the wrist, was not remarkable as to strength or or frequency; but the temporal arteries throbbed violently—his tongue was white, but not much furred—the bowels were confined—urine scanty—had neither nausea nor vomiting.

15th. Profound stupor—stertarous breathing—surface bedewed with warm, sour-smelling perspiration.

18th. Abdomen enormously distended—respiration 50 in the minute—pulse at wrist entirely gone—right upper and lower extremities rigid and inflexible—left extremities violently convulsed—constant muttering delirium.

From the severity of the symptoms, we considered the case hopeless, and under this view left the house; but subsequently returned, and in consultation agreed upon using the gum-elastic tube. In conjunction with Dr. Dore, and Mr. Crowley, the apothecary to the dispensary, I passed the instrument up the intestine to the extent of eight inches; an immense quantity of gas, so fœtid as to drive the nurse tender and another assistant from the room, escaped, and the abdomen at once resumed its original size. Without removing the tube, Reade's syringe was applied to it, and about eighteen ounces of a terebinthinate injection thrown up, which was immediately discharged, together with a large quantity of pale coloured, feculent fluid. The pulse became at once perceptible, and immediately after he fell into a sleep which lasted for two hours, and awoke considerably better. As the convulsions and jactitations still continued, we directed that he should get every three hours a table spoonful of the following mixture:—

℞ Camphoræ, ʒii. Spir. vini rect. ʒss. Pulv. acaciæ, ʒii. Emulsionis amygdalar. ℥viss. Syrupi, ℥jss. Tinct. opii. acet. ʒii.—M.

After the second dose he again fell asleep, and continued so for twelve hours, and, at our next visit, we were surprised and delighted to find our patient free from dilirium, tremors, and convulsions. His convalescence went on progressively, and he is now quite well.

Dublin Medical Press, Dec. 2, 1840, p. 356.

SURGERY.

SURGERY.

39.—PRACTICAL REMARKS ON CAUSTICS.

By Sir Benjamin Brodie, F.R.S., &c., &c.

Some caustics act very slowly upon the part to which they are applied, while others cause the part to slough rapidly; some are productive of great pain, which last for a longer or shorter time; others again destroy the parts to a great extent; the effects produced by others are local. In some cases, granulations rise above the surface and prevent new skin forming over them; it is important that they should be destroyed. For this purpose you should use nitrate of silver; this causes the destruction of some and the absorption of others. There are some cases where there exists a great number of fungous growths, and it is necessary to get rid of these. You will find this ointment useful: Ærugo æris, cupri. sulph., hydrargyri nitrico-oxidi, aa. 3ij.; Hydrarg. perchloridi 3j. Adeps q. s. ut fiat unguentum. This may be spread upon lint, and applied to loose fungous growths. One mode of making issues is by applying caustics. You should use for this purpose caustic potass until it has just penetrated through the skin. If you rub on this caustic often, you get considerable bleeding; caustic potass, too frequently continues to spread after its application. The concentrated nitric acid does not spread so much as caustic potass. I have seen nitrate of silver pounded and rubbed up with lard, applied to make an issue; its action, however, is slow, and causes much pain. Other caustics produce much less pain, and accomplish the object more rapidly than this. When an issue, or wound, or sinus is open, and you wish to keep it so, lest the orifice heal, and matter should form and produce abscess, you should touch the margin with caustic potass, which causes a slough, and this is a long time coming away. I have seen lunar caustic applied in these cases gently give pain, and cause even cicatrization of the orifice. You will frequently have to apply caustic, when it is material to use it well, as in the case of a bite from a mad dog; whether he be mad or only supposed to be so, the treatment is the same; it is better to excise the part where this can be easily accomplished, but in the bite of the palm of the hand it would be a serious thing to cut out tendons, vessels, nerves, &c.; or it may be, that when you think you have cut out all, you cannot follow the wound, you will find it necessary to cauterise it. The best caustic on these occasions is the caustic potass, because it dissolves and penetrates through to where the saliva may have penetrated. The best mode of applying it is to melt the potass in a silver or platinum cup, and dip into it a blunt probe; you thus get a layer of potass upon the end; by carrying the probe thus armed into the wound as far as the dog's tooth has penetrated, you may be sure of the caustic penetrating farther. You may use caustics to destroy diseased lymphatic glands. A man has an inflamed gland, which suppurates, and the wound will not heal, because at the bottom of it there is

a diseased gland; no ulcer will heal without a healthy basis. You may destroy these by nitric acid or lunar caustic, but the potass destroys them entirely. This was used by Mr. Pearson: an ounce of crumb of bread, perchloride of mercury 3j., red lead 3j.; this mixed and kneaded with the fingers should be rolled into conical troches, and these you may stick into the gland; they soon act, and continue acting until the whole gland is destroyed. If the application of the first troches be not sufficient, more may be inserted afterwards. I do not know whether the red lead does much good in this prescription, but I have employed this remedy as I found it. Warts on the penis or pudenda may be easily destroyed; sometimes where a great mass exists on the penis or pudenda, the lunar caustic is too weak; you should then use nitric acid till the whole is destroyed. The following will answer well: A drachm of nitric acid to two drachms of the muriated tincture of iron. A useful escharotic for warts on the penis or pudenda is powdered savine and ærugo æris sprinkled upon them, which causes sloughing. Another is this: Nitric acid ʒss., white oxide of arsenic 3j., which has the double action of arsenic and nitric acid.

On these occasions of employing caustics, without care we are in danger of destroying the skin in the neighbourhood; this may be prevented by having at hand some agent which will neutralize the operation. I may observe once for all, that it is necessary to use this precaution. If you are employing caustic potass, have vinegar by you; if chloride of zinc, bicarbonate of potass, and so with the other caustics. Caustics may be used with advantage in congenital tumours, nævi, &c. Little vascular spots on children's faces are an object of anxiety frequently in the upper classes; if you look at these you will see one large vessel and several branches supplying them. You may destroy these in the following manner: Take a glass pen (pointed glass made into the shape of a pen,) which will hold nitric acid, and apply it to the principal vessel; or, in this way, look for the principal vessel, puncture it, and insert into the puncture a fine point of potassa fusa, a moment's touch will be sufficient to destroy the vessel: if the potassa extend farther than you intended, apply vinegar, you may thus obliterate the vessel without leaving a scar. There are some congenital nævi abounding in the skin formed by a very intricate mesh of vessels; the skin is elevated and of a mulberry colour, If these are of large size, they must be destroyed by ligature or the knife; if of smaller size you may use caustics not unprofitably. The nitric acid is the best application; this makes a slough, the blood coagulates, and the parts become indurated. This is only applied when nævi are of small size. In sub-cutaneous nævi, which are not of the same colour, but purple, caustics may be applied to effect their destruction, whether of a large or small size; the great object is to destroy them with caustic rather than ligature. These nævi have been cured by the application of vaccine matter, which acts by producing a slough, but I cannot depend upon it, not having tried the matter myself. You may cure these subcutaneous nævi on the same principle; by this method puncture them with a finely-pointed lancet, then, having a probe armed with nitrate of silver by dipping it into fused nitrate of silver, introduce it into the puncture, the caustic presently causes sloughing, and the vessels are obliterated. If the tumour be of a large size, the application must be repeated. I have used this plan with great advantage, when it was necessary to save the skin. I was called to see a child with nævus of the nose: to have cut it out, would have disfigured her for life; so I used a narrow instrument for dividing the skin, and inserted the caustic-armed probe into the wound; the operation, after having been performed a few times, succeeded perfectly, and a scarcely observable mark only was left. I have destroyed extensive nævi in this way, without leaving a scar. The nitrate of silver is the best caustic for such tumours, and when you apply it, use olive oil to prevent it excoriating the skin.

Medical Times, Dec. 19, 1840, *p.* 139.

[The above is an interesting account of some of our best caustics as used by one of our most celebrated surgeons. We cannot help also giving his remarks published in another journal on some of the affections in which they will be found most useful. It will be seen that some of the following remarks have been already given; but the remainder are so truly practical and useful that we cannot help placing them before the reader:]

There is no class of cases in which you will have such frequent occasion to apply caustic, as those of exuberant granulations, such as are commonly called *proud flesh*. In some cases, in which there is little disposition to form new skin, the granulations rising above the level of the skin in the neighbourhood, it is important that they should be destroyed. On these occasions we commonly use the nitrate of silver, and it is quite a sufficient caustic for this purpose. You rub the part with it pretty freely, and the next day the exuberant granulations have disappeared, partly by sloughing, and partly by absorption. There are, however, occasions on which you will find a great irregular mass of unhealthy granulations beyond what the nitrate of silver will easily destroy. Such granulations as those to which I now allude are frequently generated over an old carious surface of bone, and you will then find that the ointment which I am going to mention makes an excellent caustic application for them. It is a very old prescription, but not the worse on that account. The ointment consists of verdigris, sulphate of copper, nitric oxide of mercury, of each two drachms, oxymuriate of mercury one drachm, with as much hog's lard as is necessary to blend them together. This may be spread on lint, and one or two applications will be sufficient to destroy a very large mass of fungous granulations.

Caustics may often be used very advantageously for the purpose of destroying diseased lymphatic glands. A man has chronic inflammation and enlargement of the glands in the groin, forming a considerable tumour. The skin over them ulcerates, forming at last a large ill-conditioned ulcer, which will not heal. What is the reason of this? Because no ulcer will heal unless it has a healthy basis, and here the basis is a mass of diseased glands. These diseased glands may take a long time to recover themselves—not merely months, but one or two years, and as there are plenty of glands to spare there is no harm in destroying them. You may affect this by the caustic potass, but not very well; you want some kind of caustic which will lie in the substance of the diseased glands, and destroy their inner structure as well as their outer surface. The form of caustic I am going to mention was used by the late Mr. Pearson, from whom I had the prescription. It consists of one ounce of crum of bread, two drachms of oxymuriate of mercury, one drachm of red oxide of lead. These are to be mixed together, kneaded with the fingers, and formed into a sort of paste. The paste should be rolled into little conical troches, and these if left to dry, become hard like bread seals. These troches may be stuck into the enlarged glands like pins into a pincushion. They produce no effect at first, but in the course of a little time they begin to act, and the patient knows this by the pain produced. This lasts for some hours, and if a sufficient number of the troches be employed, the whole of the gland is at once destroyed. If any portion remains not destroyed it is easy to effect it by repeating the process. I do not know whether the red-lead answers any useful purpose; I suppose not, but I found it in the original prescription, and on all occasions, where I find a particular prescription to do just what is wanted, I am unwilling to alter it.

Medical Gazette, Jan. 15, 1841, *p.* 602.

No. III.

40.—NEW KIND OF CATHETER.

By J. C. Foulkes, Esq., Liverpool.

[Mr. Foulkes has brought into notice a new kind of catheter, to obviate the necessity of using different sized instruments in cases of spasmodic or permanent stricture of the urethra: or rather to prevent the necessity of withdrawing the one first used when too large, and substituting smaller ones. The instruments are all made of flexible gum. The outer or largest catheter or case contains a smaller one; both these are tipped with silver—within these there is a still smaller one, rounded as a common catheter with an aperture at the side for the escape of urine: they all slide one within the other. The smaller one can be advanced through the contracted part, if the larger one is prevented passing. It is something the same as if we passed a catheter down to the stricture, and when not able to pass it further we advanced the stilette of the catheter through an opening at the end of the catheter and through the stricture. The whole when put together forms a sufficiently round point to protect the urethra from injury. For a drawing of this instrument, the reader must refer to Mr. Foulke's paper in the Medical Gazette.]

Medical Gazette, January, 22, 1841, *p.* 651.

[Dr. Buchanan, of Glasgow, seems to have been the real inventor of this instrument in the year 1822, since which time it has been commonly used in Glasgow. Dr. Buchanan gives a very interesting account of it in a paper in the Medical Gazette, and also fully confirms Mr. Foulke's views as to its utility. Dr. B. ends his paper by stating the following advantages possessed by the instrument:]

1st. The instrument acts on the principle of a wedge, the dilatation by the larger canulæ exterior to the stricture assisting the action which the smaller canulæ and probe exert upon the stricture itself.

2d. We can employ forcible dilatation by means of the probe or smaller canulæ, or elastic instruments substituted for them, with much more safety than with any single instrument, because we are more certain that the force which we employ is directed in the line of axis of the urethra.

3d. In cases of false passage, the compound instrument is much less liable than a single one to enter the false passage, because the smaller pieces cannot so readily take a lateral direction from the line of axis.

Medical Gazette, March 12, 1841, *p.* 917.

41.—DIEFFENBACH'S NEW OPERATION FOR THE CURE OF STAMMERING.

By A. Franz, M.D.

[Dieffenbach has written a memoir on this subject which he sent to the Institute of France at the beginning of the present year.]

Professor Dieffenbach says, in the above mentioned memoir, that "the infirmity of stuttering had long engaged his attention, but its probable cure suddenly occurred to him while a patient who had come to him to be operated on for strabismus, addressed him with stammering accents. He was led to the idea of removing this impediment by an operation, from observing that the nervous twitchings of the eyelids, and spasms of the muscles of the face, which frequently accompany squinting, immediately disappear after the division of the muscles of the eye. He had frequently seen that by dividing the frænum linguæ, in cases where it was too much tied down, as also by

other operations on the tongue or on the soft parts situated at the back of the mouth, some improvement was obtained in those cases where there was a slight hesitation in speech, but never in actual stuttering. He therefore reasoned that in this infirmity the disturbance in the mechanism of speech must originate from a dynamic cause; viz. from a spasmodic state commencing in the trachea, but more especially in the rima glottidis, from whence it extends to the tongue and the muscles of the face and neck; consequently he came to the conclusion that an interruption of innervation in one of the parts affected might be followed by an alteration of the nervous influence, and therefore, by a suspension of the disturbance in the mechanism of speech. He thought that this alteration would be most certainly obtained in the nervous action of the vocal organs, by dividing the root of the tongue right across, and through its whole thickness; for doing which he has proposed three different methods:—

1st. The horizontal transverse section of the root of the tongue.

2nd. The subcutaneous transverse section of the root of the tongue, with preservation of the mucous membrane.

3d. The horizontal transverse section of the root of the tongue, with excision of a portion in the form of a wedge.

The Professor has operated in two cases according to the two first and more easy methods, but finding that although the patient was able to pronounce a few words without stammering immediately after the operation, yet on its recovery the impediment was not entirely removed, he does not speak in such high terms of these as of the third method. According to the latter he has performed fourteen operations: the earlier cases, he states, are perfectly cured not only of the stammering but also of the spasmodic contractions of the muscles of the face, neck, and thorax, and the latter cases promise an equally favourable result. He therefore pronounces this method of performing the operation, notwithstanding its severity, as far superior to the two former, "since by cutting out a transverse portion of the tongue the alteration of the nervous action on the vocal organs must be more decided; the tongue likewise becomes shortened, and its tip turned upwards, which latter circumstance has always been considered as contributing materially to the removal of stammering."

The Professor further hints, that "in selecting a case for this operation, the greatest circumspection is required; that in the execution of it, great dexterity and quickness are necessary, on account of the situation of the tongue, and the enormous hæmorrhage which of course takes place; and that in the after-treatment peculiar care is to be observed. If a strict attention is not paid to these circumstances, this operation, which inflicts so great a lesion on an important organ, may either be followed by destruction of the tongue, or even by loss of life." The first operation for the cure of stuttering was performed by the Professor on the 7th of January, 1841, on a young gentleman 13 years of age, and was followed by a perfect cure. In this case he excised a piece, of the shape of a wedge, from the root of the tongue, being three-quarters of an inch at its superior part, and extending through its entire thickness. I shall not enter here into the details of the operation, as they will be seen from the following case, operated upon by myself, according to Dieffenbach's third method.

The patient was seated in a high chair opposite the window; his head being held in a perpendicular position by one assistant, who, at the same time drew the angle of the mouth backwards by means of retractors. His tongue being thrust forwards was seized by a pair of strong forceps, (furnished with teeth to prevent them from slipping,) which I gave to another assistant to hold; by these means the tongue was steadied and compressed transversely. Having seized the tongue, posteriorly to the forceps, with the thumb and forefinger of my left hand, I compressed it transversely, and at the same time

elevated it; then passing a long, curved, pointed bistoury, from the left side beneath the tongue, and at the posterior half, until I felt the point at the right side with my forefinger, I cut directly upwards, dividing the tongue right through. I now grasped the tongue in front of the wound with a pair of long forceps, armed at the point with teeth, pressed it firmly together, and with a small straight scalpel, made a section from above downwards, commencing on the dorsum linguæ about half an inch anteriorly to the division already made, and meeting it interiorly; by these two sections a piece of the shape of a wedge was cut out of the tongue at its posterior half. The wound was now united by six ligatures of thick silk, which were passed in such a manner as to encircle in depth and breadth a considerable portion beyond the margin of the wound, and were forcibly drawn together in order to restrain the hæmorrhage; this was so far successful, that only a slight oozing continued for a short time. That the loss of blood during the operation was very considerable, is not to be wondered at, when we consider the size and number of the blood-vessels divided. The patient bore this severe operation well, but became rather faint towards the termination, and afterwards vomited large quantities of blood which he had swallowed. As soon as he had washed his mouth with a little water, I was exceedingly pleased to hear him pronounce words which, previously to the operation, he was utterly unable to articulate; such as time, powder, &c., without the slightest hesitation or stammering, and without any twitching of the lips, or even convulsive movements of the muscles of the face or neck, and immediately afterwards I was surprised by his saying with facility and distinctness, "there is some blood running down my shirt." He was now put to bed, and desired to be kept quiet, and directed not to be allowed to speak, and to have his mouth kept cool by means of cold water. On my calling in two or three hours time I found the case proceeding favourably; no reaction had as yet taken place.

Perhaps it may be as well to state that the muscles divided in this operation are the lingualis, the genio-hyoglossi, the hyo-glossi, and the stylo-glossi.

I think, previously to undertaking this operation, we ought to consider well wether the nervous system of the patient is sufficiently strong to stand so severe a shock—whether he will, from age or constitution, be able to bear so considerable a hærmorrhage as that which is here inevitable; and it would be advisable likewise to ascertain that the heart and large blood-vessels are in a healthy state.

Medical Gazette, March, 12, 1841, *p.* 921.

[Mr. Bennet Lucas has just performed this operation, dangerous as it is, at the Metropolitan Free Hospital. The case is related in the Provincial Medical and Surgical Journal, for May 8th, p. 109, and although not cured was considerably benefitted. We cannot however avoid raising our feeble voice against such a proceeding; and if the other operation of Mr. Lucas's which we here relate be of any service, it should be adopted instead. The first intimation which Mr. Lucas had of the cure of stutter was from a newspaper in which Dieffenbach's operation was alluded to. Mr. Lucas, however, differs from that eminent surgeon both in his theory and general treatment of stammering. "His operation has for its object the division and partly removal of those muscles which oppose the free elevation of the tip of the tongue to the superior alveolar arches." He relates several cases in the Provincial Medical and Surgical Journal, and amongst the rest the following:]

Mr. Mosely, aged 22, has stammered since he can recollect. This case is an excellent one to try the operation; his palate is narrow and very deep; when his mouth is open he cannot elevate his tongue more than half way to the superior alveoli; his frænum linguæ is very tense when he attempts this movement. The only words he stammers at are those which require the tip

of the tongue to be applied to the upper alveoli. His engagements make him anxious to pronounce distinctly the price of articles of merchandise; and he tests the intensity of his infirmity by the expressions, *nine and nine-pence, nine and ten-pence, ten and nine-pence, &c.*

Thinking that the frænum linguæ might have been the impediment to his utterance, I divided it freely, but with no good effect; I next divided and excised portions of the genio-glossi muscles, and his ability to pronounce correctly his wished-for expressions became at once apparent to those present, as well as to the patient himself.

The operation which I perform is as follows:—The patient being seated before a strong light, and his head resting against the breast of an assistant, I make him open his mouth fully, and elevate his tongue, which movement puts the frænum linguæ upon the stretch. In most instances the patient can keep his tongue for a sufficient time in this position to enable the operator to accomplish the object intended; but if he should not be able to do so—if the tongue be unsteady, as it sometimes is,—the assistant who supports the head can readily keep the organ elevated and steady with his fingers, having first covered them with a napkin. I next seize the frænum with a common dissecting forceps, held in my left hand, and with a pair of sharp pointed scissors, I divide this membrane across, and also the mucous membrane laterally and vertically. After this is accomplished, the borders of the genio-hyo-glossi muscles, often without any more dissecting, are brought into view; but in other instances it has occurred that a fascia and cellular tissue intervened between them and the frænum, so as to render this part of the operation more difficult, not only on account of the other parts which require to be divided, but also on account of the depth of the muscles from the surface. At this part of the operation there is often hæmorrhage from some of the sub-lingual veins being divided, but never more than to the amount of a small spoonful and the flow of saliva also from the Whartonian ducts is considerable. At other times there have not been more than a few drops of blood. If the hæmorrhage should obscure the further steps of the operation, the patient should wash his mouth with cold water two or three times, when it soon ceases. When the free borders of the muscles are brought into view, I seize them with the same forceps that was used for grasping the frænum, and I cut a triangular portion out of each with the sharp-pointed scissors. The reason I prefer the latter to be sharp-pointed is, that I am enabled to see better what I am about. The quantity of muscle I remove depends upon circumstances. After having removed the quantity apparently necessary for the free and perfect elevation of the tongue, I place the point of my forefinger in the wound, and if any parts become tense when the tongue is being raised, I free the organ from their influence. The proximity of the ranine arteries, the large sub-lingual veins, and considerable branches of the sub-lingual and gustatory nerves, makes it necessary to observe caution in the excision of the muscles. The only evidence of injury done to any of these parts in the operations I have performed was a tingling pain shooting from the seat of the operation to the base of one, and sometimes to those of both. This sensation, however, subsided in a few minutes. In a few days the wound is completely healed, and in general no trace of the frænum linguæ is left.

Provincial Medical and Surgical Journal, April 3, 1841, p. 18.

[Mr. Lucas disapproves entirely of the removal of the uvula or tonsils as practised by Mr. Yearsley, as he does not consider the affection to arise from any morbid state of those parts or their connections. He thinks also that far too much weight is attached to the opinion of Dr. Arnott and others, who consider the affection to be often "owing to a spasmodic affection of the glottis by which an arrest of the passage of air necessary to pronunciation takes place," Amussat, Phillips, Velpeau, Bau-

dens, and Bonnet, of Paris have likewise their respective methods of curing this affection, a short account of which may be seen in the Dublin Medical Press, for April 14, 1841, and from which we give the following summary.]

Twelve different operations have been already proposed for the cure of stuttering, which may be classed as follows:

1st. Simple transverse division of the muscular structure of the base of the tongue, performed by M. Dieffenbach by two separate methods.

2nd. Transverse division, with excision of a portion of the base of the tongue, performed by the same surgeon.

3rd. Mr. Lucas's method, consisting of excision of a triangular portion of the bodies of the genio-glossi muscles.

4th. A simple incision in the bodies of the genio-glossi muscles, common to M.M. Amussat, Phillips, and Velpeau, though performed in a different manner by each.

5th. Division of the attachment of the tendons of the genio-glosso muscles, (and occasionally of the hyo-glossi muscles also,) to the lower jaw, performed, in different ways, by M.M. Baudens and Bonnet.

6th. Simple division of the mucous and subjacent tissue of the floor of the mouth, occasionally found sufficient, by M. Amussat.

7th. Excision of a portion of the apex of the tongue, performed in one case by M. Velpeau.

8th. Mr. Yearsley's method of snipping off a portion of the uvula, &c.

Dublin Medical Press, April 14, 1841, *p.* 234.

[Mr. Yearsley states that he has frequently observed that "a large number of patients suffering from deafness, are affected with enlargement of the tonsils and uvula, and an irritable condition of their investing membrane, and of the pharynx generally." He generally removed the tonsil glands in these cases, and in some patients who were also affected with stammering, he perceived that the same operation cured them of both deafness and stammering. He has since operated on above forty cases of the same kind, with more or less success, (see Medical Gazette, March 12, 1841, p. 920,) Mr. Braid of Manchester, takes a somewhat similar view as Mr. Yearsley. He thinks, however, that stammering, chiefly or generally arises from a want of proper action in the epiglottis, and "the effect resulting therefrom on the vocal cords, &c."]

Medical Gazette, March 19, 1841, *p.* 950.

42.—ON THE EMPLOYMENT OF THREADS OF CAOUTCHOUC FOR SUTURES.

By Thomas Nunneley, Esq., Surgeon to the Leeds General Eye and Ear Infirmary, and Lecturer on Anatomy and Physiology at the Leeds School of Medicine.

[We think the following observations on this new kind of ligature worthy of the consideration of the profession. There is no doubt that an elastic ligature would better accommodate itself to the varied pressure and adhesion of the parts to which it may be applied. Mr. Nunneley says:]

With every precaution which may be taken, it too often happens that the ligatures are obliged to be prematurely withdrawn, owing either to the irritation they produce, the too great stricture of the parts by their swelling subsequent to the introduction of the ligature, or to stop that ulcerative inflammation which nature sets up, and by which she speedily accomplishes its removal.

More than twelve months since I was induced to try several substances, in the hope of discovering one which should be free from the objections incident to the ordinary ligatures; this, I think, I have succeeded in, or, at least, I have found one which certainly possesses many advantages over the filamentous material now commonly employed; it is that substance which is now applied to so many purposes in the arts—caoutchouc drawn out into fine strings. These threads I have hitherto obtained by removing the fibrous envelope of cotton or silk, with which the Indian-rubber itself is surrounded in the elastic web, at present so commonly employed for bandages: not being able to procure in Leeds the elastic strings alone, but in London, or where the fabric is manufactured, there could be no difficulty in obtaining them.

The advantages which it possesses as a ligature are, the much longer time it remains without producing irritation of any kind; being elastic, it holds the divided parts in contact with much less stretching, and in a more natural manner, and, at the same time, it keeps up an equal degree of tension; for if the part swell, the ligature gives way in porportion to the pressure; on the contrary, do they contract, so also does the ligature, and an equable approximation is maintained. From being smooth and unirritating, it excites so little disturbance that a greater number of ligatures may be introduced, and thus the parts may be more accurately adjusted to each other; moreover, by not inducing ulceration, the scars left after its withdrawal are less than those produced by silk, advantages not to be lost sight of in operations about the face and neck.

Though I have not had an opportunity of trying the caoutchouc ligatures in operations for hare-lip, I am disposed to think they might supersede the twisted suture, and thus obviate the introduction of pins, which always leave marks.

In employing the caoutchouc thread, it should be borne in mind that, when put upon the stretch, even to a slight degree, they become much more slender than when perfectly relaxed; consequently this must be allowed for, by selecting a thread which is somewhat thicker than would otherwise be chosen.

In tying the ligature, care must be taken to draw it so tight that the lips of the wound shall be retained in accurate apposition without making any stress upon the string; the ends should be knotted three or four times, to prevent any danger of their giving way; this will be more effectually prevented, if, in making the first knot, the cord be twice twisted, as many are in the habit of doing with the common thread ligature.

I need scarcely add, that the very qualities which render the caoutchouc thread preferable for sutures for wounds, totally unfit it as ligatures for vessels, where a sharp *unelastic* string is necessary for first dividing the inner coats, and subsequently retaining them in contact.

London Lancet, March 13, 1841, *p.* 849.

43.—ON STRABISMUS OR SQUINTING.

By Thomas Elliott, Esq., M.R.C.S., Carlisle.

[Although our periodicals have been actually deluged with papers on this affection since its first introduction into this country, we cannot help devoting a few pages to the following remarks of Mr. Elliott, whose opinions, however, have been contradicted by some able writers on the subject; but which, nevertheless, seem to us very worthy of notice. We bring them forward more particularly as they differ from most other writers on the subject. Mr. Elliott, says:]

The best definition of strabismus that occurs to me is—that state of the eyes in which parallelism of the axes of the globes, in their different movement, no longer exists.

Strabismus, as thus defined, may be conveniently divided, for practical purposes, into two great classes, viz. 1. Those cases in which there is no association whatever in the motions of the two eyes; or which only can be properly called cases of single squint; and, 2. Those cases in which there is an association in the motion of the eyes, where the position of one eye is always dependant on that of the other, and which may, with equal propriety, be called cases of double or mutual squint.

1st Class. Cases of strabismus in which there is no association in the motion of the eyes, or cases of single squint.

The affected eye may be either fixedly inverted or everted. No change of position takes place in it on closing the other eye, or on directing the patient to look to one side or the other, when both eyes are open. In this class there is inversion or eversion of one eye, but no mutual convergence or divergence; and the deformity may be caused either by paralysis of the opposite muscle, or morbid adhesions.

In my own practice I have only met with one example of this class.

In cases of this kind, it is scarcely necessary to say, that the operation, if undertaken, must be confined to the affected eye.

2d Class. Cases of strabismus in which there is an association in the movement of the eyes, where the position of one eye is always dependent on that of the other, and which may, with equal propriety, be called cases of double or mutual squint.

The two varieties of this class may be distinguished into,

1. Mutual Convergent Strabismus; and, 2. Mutual Divergent Strabismus.

1st. Variety. Mutual Convergent Strabismus. a. Cases requiring the Division of one Adductor: and b. Cases requiring the Division of both Adductors.

a. Cases of Mutual Convergent Strabismus requiring the Division of one Adductor.—That these are not cases of single inversion, but in reality of double or mutual convergence, is proved at once by the experiment of closing the straight or sound eye, as it is generally termed, when the position of the eyes instantly becomes reversed.

The affection, though slight, is undoubtedly participated in by both, and the effect of the operation on one eye, by removing the mutual convergence and restoring the parallelism, is visible on both eyes, since it not only removes the inversion of the eye whose adductor has been divided, but also the temporary inversion of the other or straight eye, which I have always seen in cases of this class, on resorting to the experiment of closing it and raising its lid, before the operation, as above mentioned.

Whether the parallelism of the eyes will be restored by the division of one adductor, may be nearly always ascertained before hand, by attending to the following circumstances.

1. If the mutual convergence be slight, as seen by a corresponding slight inversion of one eye, when the patient regards an object placed before him, both eyes being open.

2. If the power of abduction be free, which I believe is always the case where the inversion is principally caused by the adductor, and not much shared in by the superior and inferior recti.

3. If the eyeball be large, as in that case it will be less acted on by the inner fibres of the superior and inferior recti, unless their tendons be large in a corresponding degree, so as to wrap over to the inner side of the ball, which I have not observed to be the case; and,

4. If the patient be young, or the squint of short duration, which diminish

the probability of any great implication of the inner fibres of the superior and inferior recti.

There can be no doubt, that the parallelism of the eyes would be restored in these cases by the division of the adductor of either eye; but a preference must be given to that of the inverted or less clearly seeing eye, for the following reasons. Suppose the left eye to be usually inverted, or not used, on account of its indistinct vision. The section of the right adductor would, by restoring the parallelism of the eyes, remove the inversion of the left eye, and no squint would be perceptible on desiring the patient to look at an object placed before him; but the movements of the eyes, on looking to the right side, would be too free; while, on looking to the left side, on the contrary, the eversion of the left eye and inversion of the right would be limited in a corresponding degree, from the circumstance of the inner fibres of the superior and inferior recti of the former having been probably in some degree implicated or practised in the production of the almost constant inversion of that eye, so as to counteract more or less the abductor's action; and the same fibres of the other or right eye would probably offer but a feeble opposition to the right abductor, as the actions of the different muscles of that eye may be presumed to be normal, in consequence of its natural movements when both eyes are open, and it is made use of.

In cases, however, of this kind, where the sight of the eyes is equally distinct, and where, consequently, they are made use of alternately, the operation on either eye will answer equally well.

[Five interesting cases are brought forward to illustrate this opinion; in commenting on which the author says:]

The preceding cases will serve sufficiently well to illustrate this class, which, though single as regards the operation, are in reality cases of mutual convergence, as is proved both by the dependence of one eye on the other as to the position before the operation, and by the effect of the division of one adductor, not only on its own eye, but also on the other which is no longer inverted, when its lid is closed and raised.

The only difference between these cases, and those to be next described, is in the degree of convergence, which, if great, will require the division of the second principal converging muscle, or the adductor of the other eye, whether that convergence be indicated by a continued inversion of the same eye after the division of its adductor, or the inversion be apparent in the second or formerly straight eye.

[The most important cases and those which more particularly elucidate Mr. Elliott's particular views and treatment, are the following:]

b. Cases of Mutual Convergent Strabismus requiring the division of both adductors.—In this division I include, 1*st.*, those cases in which parallelism of the eyes is not perfectly restored by the division of the first adductor; and 2*d.*, those cases of relapse where the convergence cannot be removed by practice, whether it be apparent by a renewal of the inversion of the eye already operated on, or by a change of inversion from the first eye to the other, which inversion, as I have before mentioned, will be found to depend on the relative powers of vision of the eyes.

[Mr. Elliott first gives "a few examples where the inversion was removed from the eye, the adductor of which had been divided, and appeared in the other eye," but it is more particularly to the other variety to which we wish to direct the attention of the reader, namely, the]

Examples of the last variety of cases belonging to this division, viz., those where a still continued convergence, after the division of the adductor of the inverted eye, is indicated by a continued inversion of the same eye.

This continued squint or inversion, which is still confined to the eye whose adductor has been divided, when both eyes are uncovered, and the patient looking before him, has been attributed to very different causes, such as an undue contraction of the inner fibres of the superior or inferior rectus, an unhealthy state of the external rectus or adductor, healing of the wound of the conjunctiva by first intention, the eyeball returning to its bed of membrane and fat, like a cast in a mould, an imperfect division of the adductor and its cellular tissue, &c., &c., and the practice adopted for its removal has varied according to the views entertained by those writers as to the reasons of the continued inclination inwards of the eye.

The remaining inversion is no doubt effected by the contraction of the inner fibres of the superior and inferior rectus; but, as I stated in the Lancet of September 19, this contraction is made to accommodate the more distinct vision of the other eye, and is not the result of a shortening of those fibres, as is at once proved by the reversed position of the eyes, when the straight or sound one is closed.

An unhealthy state of the abductor, contraction of the conjunctiva, &c. are also disproved by the same simple experiment.

The cause of the evil is the non-removal of the mutual convergence, the continuance of which is to be attributed to the ill-directed association of the motific nerves; and the continued inversion of the eye operated on, depends, as before stated, on its very indistinct vision, which renders it comparatively unfit for use.

Were the affection confined to the inverted eye, and the inclination inwards attributable merely to a temporary effort made by its superior and inferior recti to prevent confusion of vision, the practice of bandaging the sound or straight eye would be all that was required. But, as already mentioned, the only effect of that practice in these cases is reversing the position of the eyes, so that the utmost to be gained by its adoption would be a permanent change of inversion from one eye to the other, by producing a change in their relative powers of vision.

I trust the distinction thus made between inversion and convergence will be clearly understood. The former depends on the eye's comparatively indistinct vision; the latter, on an abnormal association of the nerves of motion. That the fault lies in the nerves which regulate the movements of the muscles, and not in the muscles themselves, is evident, 1st, from the natural position of each eye when the opposite one is closed; and, 2dly, from the circumstance that a similar action is frequently adopted by the remaining muscles or superior and inferior recti, causing a temporary relapse, to remove which a side-practice of longer or shorter time will be often found necessary, till the eyes be accustomed to their new association or parallelism of movements.

It is on account of the difficulty of removing the converging tendency that I now invariably adopt the practice of dividing the second adductor, when an inversion, however slight, is seen in either eye on looking forwards, after the division of the first adductor; not to mention the improvement in the appearance of the eyes by rendering them symmetrical.

Out of twelve very interesting cases to illustrate this doctrine of dividing both adductors, when the division of the first does not cure the affection, we select the following which is sufficiently illustrative:

Sept. 14, Miss Rennison, aged 13. Squint of seven years' duration. Inversion of the left eye so great, as nearly to conceal all the white internal to the cornea, when the right eye was straight, and the patient looking at an object placed before her. On closing the right eye, their position was reversed, but on raising its lid, the left eye instantly turned in again. Right eye

always made use of, as the vision of the left was very indistinct; abduction good; eyeballs small.

Operation.—The left adductor was separated and divided. On uncovering the right eye, a slight inversion was still apparent in the left. On searching carefully with the blunt hook, it was found that all had been divided. The adductor of the right and straight eye was then divided, which completely removed the remaining inversion of the left one, and restored the parallelism, at the same time rendering them equally prominent.

[Mr. Elliot then says:]

It would be useless to offer more examples of this variety of strabismus,—indeed, I fear they are already too numerous. But I wish to impress on the reader, 1. that the division of the adductor of the inverted eye very often fails in removing its squint; and, 2. that its continued inversion may be removed instantly by a division of the corresponding muscle of the straight and clear-seeing eye, provided the convergence be mutual, as ascertained beforehand by their association of movements.

I am anxious to lay the more stress upon this, as I regret to learn that such eminent surgeons as M. M. Roux and Velpeau regard the operation itself as unsatisfactory, and one that must soon be abandoned; an opinion entertained also by some surgeons of this country, who have operated on a number of cases, but confined their operation or operations to the inverted eye.

The continued inversion, as before-mentioned, depends on the eye's inutility for the purposes of vision; and the surgeon must direct his attention, not to the removal of that inversion by dividing more muscles of the same eye, but to the removal of the mutual convergence, in causing which the straight or non-squinting eye is equally implicated.

As the convergence, though not the inversion, is always shared by both eyes, so ought the operation to be, provided parallelism be not restored by the division of one adductor.

And in such cases, I would insist upon the division of both adductors at the same sitting, in order to remove the converging tendency as soon as possible, otherwise the habit assumed by the superior and inferior recti may be so powerful as to require operation on them also.

In all the cases where I have divided both adductors at the same sitting, the squint has been removed. In most of them the eyes have been instantly made parallel on looking forwards, and equally so in a few weeks on looking to either side. In a few, slight divergences have been caused, accompanied by diplopia; but this has always disappeared in a few days. In two or three an occasional cast has been observed immediately after the division of both adductors, when an oscillation of the eye that was formerly inverted was seen, caused by the alternate action of the abductor, and the superior and inferior recti, which soon disappeared when the eyes became accustomed to their new association.

[The author ends his very clever and interesting paper by the following remarks on mutual divergent strabismus.]

Class II. 2d Variety.—*Mutual Divergent Strabismus.*—Like the [illegible] mutual divergent strabismus may be classified under two heads, viz.—

a. Cases requiring the division of one abductor. b. Cases requiring [illegible] vision of both abductors.

a. Cases of Mutual Divergent Strabismus requiring the division of [illegible] *adductor.*—Like the cases of mutual convergence, the closing of [illegible] nally remakes the other straight; and on raising the lid of the closed one [illegible] ll through seen everted. [illegible] ulation with

When the mutual divergence is slight, as indicated either by [illegible] their results; [illegible] ised or hoped.

slight eversion of the same eye when the patient looks forwards with both eyes open, or by the alternate slight eversion of the eyes, when their powers of vision correspond or nearly so, the division of one abductor will be all that is required; and, for the reasons before given, I would select the usually everted eye, or that one whose vision is most indistinct, for operation.

Where, however, the eversion has resulted from the division of one abductor, and cannot be removed by practice, I would give a preference to the other or straight eye, in order to render them equally prominent.

If the eyes be made use of alternately, parallelism will be restored by the division of either abductor.

b. Cases of Mutual Divergent Strabismus requiring the division of both abductors.—The particulars of the first case of this kind that I operated upon (on October 6, 1840,) were given at sufficient length in the Lancet of October 31. The second case was alluded to in the same paper, and will serve to illustrate this class.

CASE, October 10. Mr. Wilson, aged 41. Squint of thirty year's duration. On looking forwards, the right eye is always straight, and the left so much everted as to expose scarcely a line of the albuginea external to the cornea. The eversion is always seen in the left eye, its vision being so indistinct as to render it useless. On closing the right eye the left becomes straight; and on raising the lid of the former, it is seen everted for an instant, when their position becomes reversed. Power of inversion good.

Operation.—The left abductor was separated and divided, and was found scarcely thicker than a crow-quill. A slight eversion was still apparent in the same eye. On searching with the blunt hook, it was found that all had been divided. After a little explanation, the patient readily submitted to the second operation.

The abductor of the straight or sound eye was then divided which, by removing the diverging power, and restoring the parallelism, removed also the continued eversion of the left eye. The cure was perfect, and the power of abducting each eye existed in the natural degree, immediately after the operation.

Edinburgh Medical and Surgical Journal, April 1841, *p.* 370–394.

44.—ON THE EXCISION OF JOINTS.

By M. RUTHERFORD ALCOCK, Esq., K.C.T.

[We extract the following remarks from Mr. Alcock's valuable paper in the Medico-Chirurgical Transactions, as given in the Medico-Chirurgical Review:]

Mr. Alcock alludes in the beginning of the paper to excision of the articular ends of bones after injuries. And his remarks are valuable. He shews that this operation has not been sufficiently practised in the army.

EXCISION OF THE HEAD OF THE FEMUR.

"Excision of the head of the femur has been practised. M. Paillard, in his '*Relation Chirurgicale du Siege d' Anvers*,' gives an example of resection of the head of the thigh bone for a comminuted fracture of the neck,—six inches of the bone, including the head and neck, were removed with very trifling loss of blood. During the first few days, some chances of success were observed; but the limb quickly afterwards became gangrenous, and the patient died on the ninth day. Mr. White, of Manchester, was the first to propose this operation, about the middle of the last century. One case only of its actual performance had been related before M. Seutin's, by an American, and was not considered, I believe as very certainly authentic. The result of

M. Seutin's case is not likely to lead many to perform an operation, which I cannot but think very little calculated to save a useful limb under the most favourable circumstances. I believe, however, that Mr. White, Surgeon to the Westminster Hospital, has performed a similar operation for carious disease of the head of the femur, and with good result."

EXCISION OF THE HEAD OF THE HUMERUS.

In wounds of the shoulder-joint, observes Mr. Alcock, Larrey speaks of ten cases in which he avoided amputation by extracting or removing the head of the humerus; one died of fever, two of scrofula, and one of plague. In some there was anchylosis, in others a species of joint.

In 1794, M. Percy showed, in Paris, nine successful cases, where the head of the humerus had been removed: and Larrey again relates a case where the top of the shoulder was struck by a four-pound shot, merely breaking the skin superficially, but fracturing underneath the head of the humerus, the scapular end of the clavicle, the acromion and coracoid processes. He cut down upon the broken fragments, and removed them, including the head of the humerus. The wounds cicatrized, and the arm anchylosed at the shoulder, by the gradual approximation of the shaft. In another similar instance there was an artificial joint formed, and slight movement in every direction, although the arm seemed to have less strength than existed in the former case, where there was anchylosis. Mr. Guthrie also speaks of similar cases of cannon-shot injuries occurring in the British army; but all were fatal. He relates, however, several cases from musket-shot where arms were saved by removing the head from the cavity, together with any other fragments of the neck.

These facts prove, as Mr. Alcock remarks, that excision of the head of the humerus will occasionally be successful even in injuries inflicted by cannon-shot, and may be applied with confidence to those resulting from musket-balls.

EXCISION OF THE KNEE-JOINT.

Mr. A. reprobates this.

"To conclude at once with the articulations of the lower extremity, in reference to these operative means, I will observe that in injuries of the ankle, excision, whether of the astragalus or the end of the tibia, may form a resource; and examples are on record, when both one and the other have been removed with success. If a shot, however, pass directly through the articulation, splintering articulating surfaces of both tibia and astragalus, I believe amputation to be almost invariably indicated. The excision or removal of the whole or portions of one of the articulating surfaces forming the ankle joint will more frequently be found expedient in the dislocations attended with laceration occurring in civil life, where it is often impossible to return the projecting parts to their proper position, than to gun-shot injuries more extensively shattering the bone, and contusing all the parts in the vicinity."

EXCISION OF THE ELBOW-JOINT.

Our author speaks favourably of this—a successful operation in civil practice.

EXCISION OF THE WRIST.

It is often, says Mr. Alcock, difficult to decide upon the course to be adopted in wounds and lacerations of this articulation. Patients occasionally recover from very severe injuries, such as the passage of a musket-ball through the carpal bones, or the laceration of a saw passing into the articulation with the hand. Yet these are cases at best eminently uncertain in their results; and although much may be adventured, but little should be promised or hoped.

Excision of the end of the radius, the removal of a dislocated carpal bone, or of the head of a metacarpal bone, may occasionally be adopted, and with success, to prevent the loss of a hand. It is impossible, however, to predict, with any certainty, the degree of inflammatory and suppurative action which may ensue; and on this chiefly hangs the issue of the case.

If there be crumbling of one or more of the carpal bones, provided the tendons are not divided across, these fragments may be removed, and an attempt made to save the hand. But if there be comminution involving the greater part of the articulation, instead of its lateral extremities merely, it rarely happens that the tendons are not extensively torn across also; and then amputation would better be performed at once, and no attempt made by excision to remedy the mischief.

Medico-Chirurgical Review, April, 1841, *p.* 314.

45.—TREATMENT OF ENLARGED BURSÆ MUCOSÆ AND SYNOVIAL SHEATHS OF TENDONS.

By Professor Williams, Dublin.

[Professor Williams, of Dublin, has cured several cases of chronic tumours of the bursæ mucosæ and synovial sheaths of tendons "by the subcutaneous division of the sac of the tumour and the subsequent application of pressure."]

A cataract needle was passed into the tumour (an enlarged bursæ over the knee,) and the entire thickness of the sac divided by several parallel and longitudinal incisions. A portion of the fluid escaped into the cellular tissue, but the greater part found exit externally on the withdrawal of the needle. The knee was then strapped with adhesive plaster, and the limb kept at rest.

[Dr. Houston confirms Mr. Williams' statement by a similar case of his own, respecting which he says,]

The operation was performed with the cataract needle, but as the needle would not have extended much more than half the diameter of the tumour, it was necessary to introduce it first at one side and then at the other. In this way a number of radiating incisions were made through the sac on both sides, so that there were at least half a dozen incisions on both sides radiating from the point where the needle was introduced. Next day the tumour had nearly disappeared, and there was no subsequent pain or inflammation. About a tea-spoonful of fluid escaped during the operation.

Dublin Medical Press, April 21, 1841, *p.* 241.

46.—HINTS ON THE TREATMENT OF PILES.

By Bransby Cooper, Esq., F.R.S., Surgeon to Guy's Hospital.

[After entering into the nature and symptoms of piles, which we have not space here to enter into, Mr. Cooper gives a few very valuable hints on the treatment of this troublesome disease. He says:]

Now, a most effectual means in the treatment of piles, is to direct your patients to get into the habit of passing their motions at night, just before going to bed. You know the more usual time is just after breakfast, but just consider for a moment the effect of this on an irritable rectum. The upright posture prevents the rectum from receding into the pelvis, and it is, therefore, left within the action of the levator ani and the sphincters. These compress the irritated mucous membrane, and being like all muscles which

are partly voluntary and partly involuntary, excited to contract through the medium of the nerves of the mucous membrane,—as these nerves are morbidly sensitive, so the contractions of the muscles are immoderately violent. The man passes his motion in the morning; goes about his usual occupations; the rectum is thrust within the action of the irritated muscles; it cannot recede into the pelvis and pass from their scope, and the greatest suffering follows.

[In the advanced stages of internal piles, an operation is required for their cure: but as the parts are frequently irritable and inflamed, thereby disabling the surgeon from reaching them, it becomes necessary to soothe and palliate for a time by leeches, enemata, the recumbent posture, and mild laxatives, such as confection of senna and sulphur.]

Sometimes the patient will find it difficult to force down the rectum; you feel the pile scarcely an inch from the anus, and tell him to strain, but he cannot make it protrude. It is here, as with all muscles which are partly voluntary and partly involuntary, that their action cannot be excited by the will alone, without their natural stimulus also. Thus, with the function of deglutition, if you attempt to swallow you can do it once or twice, because there is some saliva in the mouth; but if you try again and again, you find it impossible to effect; so the pile which the patient cannot force beyond the anus by any mere voluntary effort, he cannot prevent from protruding when he is passing a motion. If you are not aware of this when he comes to be operated on, you tell him to force the gut down,—he says he cannot,—then you say you cannot operate to day,—he replies, that you promised to do so,—and you part mutually dissatisfied; but when you know what you may expect, you guard against it by giving a dose of castor oil about an hour before you mean to operate, to ensure an action of the bowels, and then you find the pile protruded ready for you. The object, then, in these internal piles, covered with mucous membrane, is to surround them with a ligature tightly applied, to cut off the ends of the ligature, and return the pile and rectum into the pelvis. The ligature should be tied very tight, but still you must be cautious: for if the base of the tumour be narrow and the ligature a small one, you would cut off the pile as certainly as with the knife, and I have known several patients killed by cutting off internal piles with the knife or scissors. As you see in this diagram, the piles hang by peduncles much smaller than the base of the excrescence; now the object is not to tie the neck or peduncle, but to surround the mucous membrane and submucous cellular tissue where it forms a flat surface on the gut, taking care not to include any muscular fibres; for if you do so the muscle is irritated, it contracts, and tenesmus is set up, which tells you what you have done, and then you had better at once remove the ligature and apply another more carefully. If you do not tie the muscle, but only the mucous membrane and submucous cellular tissue, there is little or no pain produced, and the cure is almost infallible and unattended by risk. I always tie the ligature once, and then lay open the tumour with the lancet, and turn out the blood or coagula it contains. By this the ligature is a little loosened: so I tighten it, and then make the second knot, cut off the ends, and return all together into the pelvis. The opening the pile is a great advantage; for if the tense tumour be returned, even if you have no difficulty in getting it back, it acts as an extraneous body and causes great irritation, whereas there is nothing of the sort if it be opened; it is easily returned and causes no irritation. You may tie two, three, or four piles in this manner at one sitting: maintain the recumbent posture, and if there is any uneasiness about the parts, use fomentations. The bowels having been freely opened before the operation, keep them costive for a day or two to obviate the mechanical injury caused by the passage of a motion; and to compensate for this, you may excite the other secretions a little. Induce a little

perspiration and a freer flow of urine. With regard to the after treatment, the habit of passing the stools at night is the most effectual means of preventing any return.

With regard to external piles, Sir Everard Home is of opinion that they do not take their origin in congested and dilated veins, as the internal ones do, but they arise from inflammation of the subcutaneous cellular tissue, and its thickening with deposit of adventitious matter. This is true with respect to one species, but there is another kind which has been internal, but has become cuticular from constant protrusion. Sometimes you will have both internal and external piles in the same patient, and sometimes what you may call the interno-external, from their having originated internally. In the external you have more pain in the course of the sciatic nerve, and greater tenderness of the perinæum, with very often some prolapsus ani; and while the ligature is the remedy for the internal, so is excision for external. You must shave them clean off, so as to leave the verge of the anus perfectly smooth, and then all you have to do to complete the cure is to occasionally pass a bougie in the anus, to prevent contraction of the opening, resulting from cicatrization of the wounds. Where there are both internal and external piles, you must cure the latter first, otherwise they will act as an irritating cause preventing the cure of the former.

[Mr. Cooper makes the following remarks on prolapsus ani, which so frequently accompanies piles.]

Under ordinary circumstances, you will cure the prolapsus by palliative means, and by curing the piles which have caused it, but if the mucous membrane and the muscles have been so much relaxed as to render a large prolapsus permanent, you must take up two or three folds of the mucous membrane which covers it and surround each fold with a ligature, then return the prolapsed gut into the pelvis. The patient will be disappointed at first as he is not relieved; it is the case that there will be no great relief till the ligatures come away, but after that the cure is permanent, at least so it has proved in either three or four cases in which I have employed this method.

Provincial Medical and Surgical Journal, March 13, 1841, *p.* 385.

47.—ON THE OPERATION FOR TALIPES.

By James Braid, Esq., Manchester.

[Mr. Braid gives several cases of Talipes, arising from a *paralytic state* of certain muscles instead of the more common cause, viz., a too powerful or contracted state. For the cure of these cases, he excises a small portion of the particular tendons implicated in the disease, and by the consequent union of the divided ends, he produces such a degree of contraction in the paralytic limb as to act most favourably. The following cases will more completely illustrate what we mean.]

Case 1. Miss ——, æt. six years, has been deprived of the use of the left leg by a paralytic stroke. She has undergone a variety of treatment under some of the first medical gentlemen of this town; but, for the last two years has been given up as a hopeless case. Her present condition is this: the left leg is perfectly powerless, dangling by the side of her crutch, without reaching the ground, and is much colder than is natural; the foot assuming the appearance of a slight degree of varus, so that it would, if brought to the ground, rest on its outer edge, the toes inclined a little inwards, and the heel slightly elevated. On the 30th of June, 1840, assisted by Mr. Rhind, my son, and one of my apprentices, Mr. Pacey, I made a longitudinal incision along the course of a peronæus tertius, which I elevated, and excised a por-

tion of it, to the extent of three-sixteenths of an inch. I then closed the wound with plaster, and applied splints and bandages, so as to approximate the divided ends, and maintain them in contact.

10th. In the presence of my talented friend, Dr. J. L. Bardsley, and others, she actually walked across the room and back again without any assistance whatever, a fact which equally astonished and delighted him and all present. In twenty days she was enabled to walk about in a laced-up boot; and in a week more to throw her crutches aside entirely. She has continued well and strong ever since. Besides the operation nothing else was done in this case, excepting the use of a stimulating liniment, which she had employed before without the least benefit.

Case 4. Master Gresty, æt. 6½ years, has had talipes valgus since one year old, arising from absolute paralysis of gastrocnemii and other muscles on the back of the leg; so that there is not only total inability of extending the foot, but such relation of all the extensor muscles, as to allow the foot to be pressed upwards until it touches the front of the leg. On the 4th of September, I excised three-eights of an inch of the tendo-achillis.

3d day. All going on well.

5th. Makes no complaint; wound nearly closed, and very little matter discharged.

7th. All going on well, and still great warmth of foot and leg, which has increased since the operation, although there is no pain or inflammation to account for it.

10th. Wound nearly closed; tendons so firmly united as to resist any attempt at pressing the foot upwards, excepting a little beyond a right angle with the leg; and has now power of flexing and extending the foot freely; showing that the paralytic state of the extensor muscles is completely overcome. At three weeks after the operation this patient fell and injured the leg, so as to cause inflammation and suppuration around the newly formed cicatrix, which retarded his recovery. After this had subsided, with the use of a stimulating embrocation, this patient regained the use of his extremity, so that he could in three months after the operation walk with ease; flexing and extending the foot freely, and capable of supporting the foot and leg in its proper relative position. Before the operation any attempt at walking was attended with great awkwardness; the leg being tossed forward, the toes turned very much outwards, and the inner ankle approximating the ground.

I believe this operation is entirely new; and I trust the cases now detailed are sufficient to prove that it is most efficient, and a highly important addition to the resources of our art in an interesting and hitherto incurable class of diseases. It of course requires great care and consideration in the execution of it, to excise a sufficient portion, and no more; but I hesitate not to say that, when properly performed, it will succeed in every case of the sort I have referred to. If too little be excised, it will not excite that activity of contractile power in the muscular fibre necessary for the correct and energetic discharge of its functions; whilst, on the other hand, if this is excited to too great a degree, from too much being excised, the result will be the innervation of the other muscles of the limb operated upon.

Medical Gazette, April 23, 1841, *p.* 186.

48.—PTOSIS CURED BY OPERATION.

By T. B. Curling, Esq.

[Mr. Curling communicates the case of a gentleman whose eyelids "hung loose and motionless over both eyes" from paralysis. Finding the patient to have still complete power over the occipito-frontalis muscle, it

struck him that by uniting the superior palpebra to that muscle the patient might have some power over the lid. He says:]

I noticed that he constantly made the attempt to raise the lids by putting the occipito-frontalis muscle into strong action, and that, in consequence, the eye-brows had become much elevated and unusually arched. It occured to me that if the superior palpebra could be brought under the influence of this muscle the ptosis would be removed, and that he might thereby regain the power of uncovering the eye. The patient being very willing that something should be done for his relief, I performed the following operation. The integuments between the eyebrow and lid, which were very abundant, were raised with the thumb and forefinger of my left hand, and those of an assistant, to such an extent that it was just possible for the patient to close the lids, when, by a single stroke of the scissors, the skin included between our fingers was removed, leaving an elliptical wound which extended from a little below the eyebrow to about one-third of an inch from the margin of the lid and the whole width of the palpebra. Scarcely any bleeding ensued. The edges of the wound were approximated and retained by two sutures, and the part united by the first intention, and perfectly healed in eight days. No ectropium or deformity resulted. The patient afterwards could completely close the lids, and, as was anticipated, could raise the superior one, and uncover the eye, simply by the action of the occipito-frontalis muscle.

Medical Gazette, March 26, 1841, p. 16.

[Mr. Hunt, of Manchester, makes the following comment on this practice which he himself had previously noticed in the North of England Medical Journal, for November, 1830, p. 164.]

There is one objection to such an operation in paralytic cases, even although the power of raising the lid were restored by such a proceeding. In most of these instances all the branches of the third pair of nerves are paralyzed, and in consequence of the connection of one of them with the lenticular ganglion, from which body the ciliary nerves supplying the iris proceed, the circular muscular fibres of the iris generally become paralyzed, and a widely dilated pupil is the result. It is a question worthy of consideration, whether continued exposure of the rectina to a greater quantity of light than usual, which must be the consequence of such dilatation of the pupil, may not materially interfere with the integrity of the functions of this delicate nervous structure; and thus lay the foundation for amaurosis.

Medical Gazette, April 9, 1841, p. 112.

49.—ON THE ERADICATION OF INVERTED EYE-LASHES: AND ON THE PREPARATION OF FINE POINTS OF CAUSTIC FOR OPHTHALMIC AND OTHER PURPOSES.

By James Hunter, M.D., F.R.S.E., Surgeon to the Eye Dispensary, Edinburgh.

The following method of eradicating inverted eye-lashes is only applicable when the edges of the lids retain their natural direction, and it is not at all suited to cases of entropium; for in this disease the inversion of the eyelashes depends on a contracted and morbid state of the lids themselves. It was suggested to me by observing the effect of subacute or chronic inflammation in destroying the functions of the ciliary bulbs, as exemplified in ophthalmia tarsi, which, when neglected, often produces complete madarosis or baldness of the eye-lids. To excite a proper degree of subacute inflammation in the bulbs of the inverted eyelashes, it is enough to inoculate them with some irritant.

The following is the best manner of proceeding; and though the detail of

it may seem prolix, I assure the reader it is only by strictly following it that success can be obtained.

1. *To ascertain the presence and position of the inverted eyelashes.*—When they are white coloured, and of extreme delicacy, not exceeding the 1-800 of an inch in diameter, as is often the case, it is very difficult to distinguish them; the edge of the lid should be brought in contact with the cornea, so that the pupil of iris may form a good contrasting background, and though they may not be visible at once, the surgeon should look from a variety of positions, and alter the direction of the light till he sees them. A convex lens of two inches focus, and not less than an inch in diameter, should be held by an assistant so as to condense the light on the parts, which is a much better plan than using it as a magnifier. If, in order to make the puncture, the edge of the lid is to be removed from the cornea, it is well first of all to blacken the pale and delicate eye-lashes with any dark extract, such as belladonna, to render them visible, when contrasted with the white sclerotic coat. 2. *The puncturing of the bulbs.*—This should be done with a lancet, or iris knife, entered close to the base of the inverted hairs, *in the direction of their growth*, to the depth of an eighth of an inch, and moved about a little, so as to widen the bottom of the wound, and cut the bulbs. In doing this, it is sometimes advantageous to stretch the part either with a small hook, or over a convex black horn spatula, such as is usually attached to the German wire speculum. 3. *The inoculation.*—This must be deferred till the bleeding has wholly ceased, when the lid being wiped very dry, the drilled end of a darning needle slightly damped, and dipped in powdered tartrate of antimony, or, what answers far better, the tartar emetic point made in the manner to be afterwards described, is to be inserted in the puncture, and held there for a few seconds. 4. *The evulsion of the inverted eyelashes is the last step.*—They should be seized lengthways close to their roots, and drawn with a slight jerk. When common dissecting forceps are used, they should be held *below* their shoulder, and close to their points, which are apt to separate a little when the fingers are placed higher up. The best forceps are those made without teeth; the holding part being merely rough-polished, so as not to cut hairs. When the eyelashes are exquisitely fine, and slip through even the best made forceps, I have found it an infallible plan to damp their points with a saturated solution of shell lac in alcohol, and to grasp the hairs for a second or two before pulling them. A momentary, though sharp pain follows the inoculation, and more or less inflammation; but the latter generally subsides in the course of twenty-four hours, and if the operation has been properly done, it recurs in a day or two, in a subacute form, producing a slight pustulation, which, however, is of very limited extent, causing almost no annoyance, but is sufficient to destroy the functions of the bulbs.

Inverted eyelashes are sometimes restored to their proper direction by making an eschar made with a red hot iron in the skin, a little to the outside of their roots; and when only a single eye-lash is misplaced, Dr. Mackenzie of Glasgow recommends making a puncture in the skin of the lid a little beyond it, and inserting a speck of pure potass, to produce an ulcer, the cicatrization of which alters the direction of the hair. The objections to these methods of rectification by contraction are, the risk of producing too much eversion of the edge of the lid, causing a *stillicidium lachrymarum*, the very unmanagable and often too extensive action of the potass, (however cautiously applied,) from its rapid deliquescence, and the circumstance that the contraction, when confined to one spot, does not always take place in the proper direction, often causing a slight puckering at the part, which obstructs the flow of tears, or leaving a depression along which they pass and trickle over the cheek. Yet in many cases where there is a complete double row of hairs along the whole tarsal edge, or where only one hair is turned in, the

plan often answers very well. As a loose speck of pure potass is not very easily handled, it will be found a safer plan, in this and all other ophthalmic cases, when it is to be used, to employ a fine point of it prepared in the way to be now mentioned.

[Dr. Hunter then states that on being called on to stop several leech bites on the scrotum and finding the sharp point of his caustic to be soon blunted, he tried the following method. He says:]

I wrapt the nitrate in a bit of paper, crushed it with my heel, and placing some of the fragments on a silver half-franc piece, I held it over the flame of a candle, and then dipt the triangular-pointed flat end of a silver probe, previously roughened on a stone, in the melted salt, which adhered, and on cooling formed a fine coating. This being inserted quite into one or two of the bites, they immediately ceased to bleed; to get another point of caustic on the probe was the work of an instant, and, in this way, a most alarming hemorrhage (the patient being almost in articulo) was speedily arrested. I can recommend the plan to general practitioners when they meet with similar cases, and it will be found an improvement to heat the flat end of the probe before dipping it, and afterwards to hold it in the blue part of the flame for an instant, as in this way a smoother coating is procured. Since the above incident, I have been in the frequent habit of employing the same method to get a fine point of lunar caustic for various opthalmic purposes, such as touching small sloughy ulcers of the cornea penetrating to the membrane of the aqueous humour, and in many other cases. I have also in this way got a fine coating of the nitrate on a probe, to be passed into the nasal duct in some cases of fistula lachrymalis; and I conceive it might be found useful in many cases in general surgery, such as sinuses, affections of the nose, ear, &c., where caustic would often be introduced, but for the fear of serious consequences from the breaking of a common stick of it in such situations. The plan just recommended answers equally well for caustic potass, when a fine point or globule of it is required, as for producing eversion of a misplaced eye-lash, or for destroying the remains of cysted tumors in the eyelids, or other purposes. The potass may be applied to the roughened surface of any common metal; but for the nitrate of silver, the probes must be of silver or gold, else the salt is rapidly decomposed and the probe destroyed. A fine point of tartar emetic, sulphate of copper, and similar salts, may be got by chipping their crystals, and then fixing the fragment on the end of the probe with sealing wax; but another plan, and the only one, when a long bristle, as it were, of these substances is required, is to take a wire, or the point of an old lancet, and heating it, and giving it a very thin coat of sealing wax, to push it whilst hot amongst the powdered salt. In this way a probe, which is to be introduced into a sinus, or into the nasal duct, may be coated with sulphate of copper or any other metallic salt; and this is the method I employ to prepare the flat points of tartrate of antimony for inoculating the bulbs of inverted eye-lashes, using for the purpose a bit of plantinum foil shaped like a lancet.

Edinburgh Monthly Journal of Medical Science, April, 1841, *p.* 259.

50.—RE-UNION OF A COMPLETELY SEPARATED PORTION OF FINGER.

By Alexander Graham, Esq.

A joiner of middle age, and apparently healthy constitution, while splitting wood with an axe, cut through the index finger of his left hand, between the first and second phalanges. He lifted the separated part from among the shavings, and immediately walked a few yards to a place where I hap-

pened to be. Being asked for the amputated portion, he took it from his waistcoat pocket and laid it on the table. I fixed it on by two sutures, and adhesive strap, and on the fourth or fifth day a pair of scissors being applied to the point of the finger, he distinctly felt them. Complete union took place, with restoration of the powers of the part which had been separated.

Edinburgh Monthly Journal of Medical Science, April, 1841, *p.* 257.

51.—REMARKS ON THE TREATMENT OF HYDROCELE

By Bransby Cooper, Esq., F.R.S., &c., &c.

Iodine Injection. For the last two or three years Mr. Cooper has used this exclusively—two drachms of tincture of iodine and six drachms of water; two drachms of which mixture may be injected and left. I have a note here stating that Dr. Henry Goodeve has used this injection in India in 276 cases, and has only failed twice. Since I have used the iodine, I have not had a single case where the injection failed to effect the radical cure, and only one where I had to repeat the injection. This was a case where the tincture of iodine that I used was bad, and as I felt convinced it would not succeed, I repeated the injection four days afterwards with some which had been properly prepared. The chemists will tell you more of this matter than I can; but if the tincture be made without the admixture of hydriodate of potash, a precipitate forms when you add the water, and the mixture is quite useless, but when properly made the watery solution is perfectly bright.

Always place your Patient in a chair.—Always place your patient on a sofa, or let him lean back in a chair, because any one is liable to faint, however bold he may appear; and then, if you have operated while he is erect, he falls, probably upsets the basin, hurts himself, or frightens his friends, all which appear very clumsy, especially in a private house.

Never let a Patient walk home after Injection.—Even after simple tapping, I have several times known inflammation thus set up sufficient to bring about a radical cure; and I know of several cases where the patient has walked after injection, where great sloughing, and in one case death, ensued. I have notes of a case here where acute inflammation was thus set up, which terminated in gangrene and death in thirty six-hours, though the sac was not injected. William Knowlson, aged 64, was tapped in the surgery by one of the dressers, and about twelve ounces of common serum evacuated. Injection was not practised. He walked about four miles on the same day, and in the night was attacked with acute inflammation of the tunica vaginalis. The next day he was seen by a parish surgeon, who treated him for strangulated hernia, and afterwards sent him into this hospital, when there was great swelling of the scrotum and prepuce, and much irritative fever. Active treatment was adopted, but in less than twelve hours, symptoms of gangrene of two-thirds of the scrotum came on, when stimulating poultices were applied and he took calomel and opium with wine, porter, quinine, and as much nutriment as possible; but he died within 36 hours from the first attack. Sir Astley Cooper also mentions cases where dangerous symptoms came on after the patient had been allowed to walk; and one among others, of a gentleman who went down to Birmingham in the mail soon after injection, and sloughing of the whole of the scrotum followed. He also gives two cases, where he thought suppuration was thus produced.

Medico-Chirurgical Review, April, 1841, *p.* 541.

52.—ON DILATATION OF THE URETHRA IN STRICTURE.

By James Arnott, M.D.

A tube of oiled silk, lined with the thin gut of some small animal to make it air-tight, and attached to the extremity of a small canula, by which it is distended with air or water from a bag or syringe at the outer end, with a stopcock or valve, to keep the air in when received, is a description of the apparatus.

The thinnest silk ribbon of different breadths, with the edges neatly sewed together, so as to make it tabular, and then varnished with prepared linseed oil, which dries upon it, and leaves the surface perfectly smooth and soft, is what I have found to answer best. The gut of any small animal will form the lining; but that of the cat is preferable on account of its thinness and strength. The canula may be of elastic gum, or of the flexible metal used to make the metallic bougies, or of silver; and the injected air may be retained, either by a stopcock at the outer extremity of the canula, or by a valve at the silk tube or bag itself. This last method is the only one applicable to the insulated dilator, which is a short length or bulb of the lined silk, to be distended and left in the canal, and having a bit of canula in the centre, for the free passage of the urine; the patient while wearing it being little incommoded by its presence.

The dilator, when empty, is introduced or withdrawn with the greatest ease to the patient.

As the shape of the silk tube is in our power, it may be made so as to have any desired form when distended; and the sizes of dilators may be ascertained with as much precision as of the metallic bougies. It has the important property also of being permanent in its dimensions. On one or two occasions, where a silk tube of the size wanted was not ready, I substituted sewed bladder; but I found that in the moisture and warmth of the urethra, this yielded in the course of a little time, so as to become of double the original diameter, thus stretching the sound canal, on each side of the stricture beyond what it could bear; and in any case where strong pressure were required, such a tube would burst before the effect could be produced.

It possesses strength to bear any degree of pressure which can be useful, for the membrane of the urethra itself would be torn, before a strong silk tube would give way; it is almost needless to add, that by injecting more air, the pressure in any given case is increased, or that it is diminished by opening the cock or valve.

The manner of using the dilator is as follows: Though in general it passes as easily down to the stricture as a small bougie, yet, on some occasions, especially in irritable urethra, unaccustomed to the presence of instruments, I have preferred introducing it through a smooth canula, in the manner already mentioned. As soon as the bag is sufficiently within the stricture or strictures, (if more than one exist in the canal,) as much air is to be injected into it as the patient can easily bear: and during the time it remains in the urethra, the future admission or escape of the air is regulated by his sensations; that is, if the feeling of distension abate, more may be injected, but if it should increase into pain, a little of the air may be allowed to escape.

[In the same work is an ingenious method of applying pressure to the body by means of air bandages or bags so as to envelope the parts to be subjected to the pressure of the air.]

For the bandage the equable pressure of elastic air may be substituted with great advantage, by enclosing the part to be subjected to it in a close *double* case of India-rubber cloth, of rather larger dimensions than the part, in order that, upon being inflated, a thin stratum of compressed air may surround it. The outer side of this case, or wherever it is not supported by the

surface of the body, must be of strong material to resist the requisite degree of pressure, but the side in contact with the skin should be thin, and of larger dimensions than the other, for the purpose of its coming closely in contact with all the inequalities of the surface.

Medico-Chirurgical Review, April, 1841, *p.* 466.

53.—REMOVAL OF ONE OF THE BONES OF THE METACARPUS, THE CORRESPONDING FINGER BEING PRESERVED.

By M. Blandin.

M. Blandin presented to the Academy of Medicine two patients from whom he had removed one of the bones of the metacarpus, but preserved the corresponding finger. The first case was that of a woman, the first metacarpal bone of whose right hand was affected with caries. The affected bone was cut out; and when the wound was healed and the cure completed, the thumb was found to be much shortened, but very useful, quite mobile, and sufficiently strong for most purposes. She was able to use the thumb for holding the pen or needle, and used it easily both in writing and sewing. The hand, indeed, was both less mutilated, and much more useful than if the entire thumb had been removed. This was the fifth time that M. Blandin had successfully performed this operation.

In the second case it was the fifth metacarpal bone of the right hand which was diseased; and though the operation for its removal was more severe than the first, when the cure was completed the finger was not less useful, and no mutilation of the hand was noticed.

Edinburgh Medical and Surgical Journal, April, 1841, *p.* 553.

54.—ON THE REMOVAL OF FOREIGN BODIES IN JOINTS BY MEANS OF SUBCUTANEOUS INCISIONS.

By Dr. Goyrand, of Aix.

This new method of operating was suggested by the fact, that incisions made into joints through such small external openings that the air cannot obtain admittance to the cavity, are never productive of that severity of inflammation which follows wounds with wide external apertures, and which in the operations hitherto performed for this disease, has so often terminated fatally. The proceeding recommended by the author consists in pushing the loose body (if in the knee joint,) into the synovial pouch above and to the outer side of the patella, beneath the vastus externus muscle, and while an assistant holds it fixed there, passing a narrow knife through the skin at some distance above the joint, and through all the intermediate tissue down to the foreign body. Without enlarging the opening in the skin, the synovial membrane, and adjacent tissues over the loose substance are now to be freely divided, till, by the pressure on the latter, it slips out of the joint through the wound, and lodges itself in the subcutaneous cellular tissue, or in some of the other tissues between the skin and the joint. After this the patient must remain at rest for several days, (the small external aperture being merely covered by sticking-plaster,) till all chance of inflammation occurring has passed away. The foreign body dislodged from the interior of the joint, will form a cyst for itself, and remain in its new position without producing any annoyance; but if it should be deemed necessary, it may easily be removed by a single incision through the skin over it, which will no longer be likely to excite any inflammation of the joint itself.

The author details a case in which this method of operating was adopted

with perfect success. Two loose cartilages were dislodged, and pushed into the tissues adjacent to the joint. One was subsequently removed by an incision through the skin; the other was allowed to remain, and produced no inconvenience whatever. Through the whole course of the treatment the patient had not a bad symptom, although less precautions were adopted than are usual in this description of cases.

["We understand that Mr. Syme of Edinburgh, performed this operation, and with complete success, without previous knowledge of M. Goyrand's proceeding."]

British and Foreign Medical Review, April, 1841, *p.* 526.

55.—NITRATE OF SILVER, IN STOPPING HÆMORRHAGE AFTER EXTRACTION OF TEETH.

By CHARLES RAY, Esq.

[Every medical man knows the occasional trouble experienced in stopping hæmorrhage after extracting a tooth. We give the following account of Mr. Ray's plan in a case to which he was called:]

Upon placing the patient with a slight inclination backwards, she immediately choked, and it being night, and in the upper jaw near the throat, I had much trouble in obtaining a view of the situation of the hæmorrhage, which flowed as freely, with the pressure of my finger in the socket, as with the addition of small pledgets of lint, steeped in a saturated solution of alum. After an ineffectual trial of these means, I took a stick of nitrate of silver, rounded at the extremity, and firmly forcing it to the bottom of the cavity, allowed it to remain a few seconds in this situation; very little pain was expressed, and, upon its withdrawal, I was gratified in finding a complete cessation of the hæmorrhage. The mouth was kept open with a cork, for about half an hour, to admit air freely, and insure the preservation of the clot, which might have been destroyed or removed by suction; she then took forty minims of opium and a tea spoonful of compound spirit of ammonia, and afterwards rested five or six hours. With the exception of the unpleasant *cuprous* flavour communicated to all nourishment for the next few days, nothing was complained of but extreme exhaustion, which was many months in disappearing.

[In another case of hæmorrhage from a seton which had been applied six weeks to the lumbar region of an otherwise healthy gentleman who had received some injury in hunting, Mr. Ray carefully examined the part and] arrived at a small fungus, or large spongy granulation, about the size of a hemp-seed, which had formed, with others more healthy, near the under edge of the wound, and from this small excrescence the hæmorrhage issued profusely. Taking the scissors, and separating it, I placed a stick of nitrate of silver upon its foundation, and not the slightest disposition to any return of hæmorrhage followed.

From this interesting case, [continues Mr. Ray,] I was led to infer that hæmorrhage, occurring after the extraction of teeth, which had, perhaps, long been a source of irritation in the socket acting as foreign bodies in the vascular situation where their natural connection was destroyed, might occasionally produce such unhealthy growths into which a large vessel might enter, and thus become the cause of excessive hæmorrhage, or even death.

London Lancet, March 6, 1841, *p.* 824.

56.—A NEW MODE OF INTRODUCING THE CATHETER IN DIFFICULT CASES.

By CHARLES PATTERSON, M. D., Physician to the Rathkeale Infirmary and Fever Hospital.

Dr. O'Beirne, in giving directions for passing an elastic tube up the rectum, says: "if it," (the tube,) "cannot be introduced higher up without much force, attach to it the syringe, and, dipping the point of the latter into the fluid to be injected, let an assistant give two or three rapid strokes of the piston, and so bring the full force of a strong and unbroken column of fluid to bear upon the point of resistance, and, while this is doing, let the surgeon urge the tube firmly upwards, and it will generally pass the obstruction as if through a narrow ring."—*Dublin Medical Journal*, vol. xiv., p. 125. On reading this passage, at the period of publication, about two years back, it occurred to me, that a similar manœuvre might be successfully employed to pass the catheter in those cases where enlargement of the prostate gland renders it difficult to do so. This suggested itself to me the more readily, from having been a short time previously in attendance on an old man with enlarged prostate, in whose bladder it was not easy to introduce a catheter. It was not long until I had an opportunity of putting the suggestion into practice in another patient, in whose case, the instrument not passing freely, I took a large sized silver catheter, which happened to have the eye very near the end, and introduced it as far as the obstruction; I then forced a stream of warm water through the urethra, at the same time depressing the instrument, when it immediately entered the bladder with the greatest ease.

In this case it is most probable, that from my eagerness to try the experiment, I had recourse to it unnecessarily, and that the instrument might just as readily have passed where it did without the pioneering of the water. But in a few days I was again called to the old man, above alluded to; he had been forty-eight hours without passing any water; and a practitioner, who was very expert in the use of the catheter, had already, in various attempts, failed to introduce it; I made use of every legitimate exertion and manœuvre, but was also unable to pass the instrument; I then forced a stream of water through the obstruction, when, after about two or three ounces of that fluid had been injected, the urethra became very much distended, and the catheter passed into the bladder with very little difficulty.

I have since employed the same means, under similar circumstances, on one or two other occasions, and always with success. I do not mean to say, that, in these instances, the instrument could not have been otherwise introduced into the bladder, but, having experienced much difficulty in endeavouring to accomplish that object, instead of persevering in embarrassing attempts, I had recourse to the above stated means, which had the effect at least of greatly facilitating the operation.

I have also used this contrivance to introduce the catheter in a case very different from the above. The patient laboured under most distressing inflammation of the mucous membrane of the urethra, and his bladder was greatly distended with urine, which he could only pass in drops and in extreme agony; there was a most unbearable desire to empty the bladder, occasioned, in a great measure, it may be presumed, by that organ's partaking of the inflammatory action. The morbid sensibility of the urethra was such as that no instrument of any kind could be introduced, and the patient's impatience could not wait the abatement of the inflammation, under the employment of the most active means. In this case I attached an injecting apparatus to a curved elastic catheter, and, having inserted the extremity of the tube a little way within the orifice of the urethra, I, in the gentlest manner, injected, or rather insinuated a little warm decoction of linseed, just so as

moderately to distend the urethra; I then gradually urged the catheter onwards, and succeeded in getting it into the bladder, with little or no pain or inconveninnce to the patient.

The injecting apparatus which I have employed is very simple; it is formed by merely attaching a small bladder to the end of the catheter, after the manner of a mounted enema pipe; the bladder need not be large, one that holds about half a-pint of water will be sufficiently so; and the catheter must be furnished with a small cork, having a piece of twine fixed to it, just like the cork of an enema pipe. The largest sized catheter the urethra will admit of should be used, that the impetus of as large a jet of water as possible may act on the obstructed part of the canal, and also that the urethra being filled by the instrument, the fluid may be easily prevented from returning by the side of the catheter.

It is not difficult to comprehend the mode in which this operation facilitates the passage of the catheter. The patient's bladder, being full of urine, opposes considerable resistance to the influx of the water forced through the instrument; this fluid then, pouring into the urethra, forcibly distends that canal and the neck of the bladder; and, from the circumstances of their connexions, the distension principally takes place in the direction of the rectum, forcing the tumid middle lobe of the prostate backwards and downwards, and so diminishes the obliquity of the passage. It may be, also, that when the patient's bladder admits a portion of the injected fluid, its increased distension, from that cause, aids in drawing backwards the enlarged lobe of the prostate, in the way Sir Everard Home states partial relief to occur naturally in such cases, when, about the third day of the obstruction, the bladder becoming extremely distended with urine, its posterior part bulges backwards, and draws the swollen lobe with it.

Thus the distension of the urethra, its acquirement of a more normal direction, and the altered position of the tumid lobe of the prostate gland, all concur in allowing the instrument to glide with ease into the patient's bladder.

For the injecting apparatus, a pig's bladder will be found to answer much better than an elastic bag or syringe, in allowing freedom of motion to the catheter, and ease of management to the hand.

Dublin Journal of Medical Science, March 1, 1841, *p.* 23.

57.—ON THE CHANGES IN THE COLOUR OF THE IRIS PRODUCED BY INFLAMMATION.

By James Hunter, M.D., Surgeon to the Edinburgh Eye Dispensary.

[We deem this a very interesting and important paper of Dr. Hunter's and on a subject which has not sufficiently attracted the attention of even professed oculists.]

In the earliest stage of iritis, the iris contains an unusual quantity of red matter; the vessels, however being merely distended with blood. On the other hand, in the latter stage of uncontrolled iritis, or in the sequelæ of the disease, yellow lymph is effused into the interstices of the iris, which consequently assumes a yellow appearance. In the intermediate stage, when there is both a fullness of the blood-vessels, and incipient effusion of lymph, the iris contains much reddish yellow matter. On the existence of some one of these conditions, the morbid changes observed in the colour of the iris primarily depend.

If the iris were naturally white, and if the opthalmiæ affecting it were confined to its middle tissue, then acute cases would be always distinguished by a pinky redness, chronic cases by a primrose yellowness, and those of a sub-

acute nature by a pale orange tint. But as inflammation may affect different parts of the iris, and as the natural colour of the organ varies much in different persons, the morbid changes in its colour will be modified by these two circumstances, especially by the last.

I. *Modification in colour depending on the seat of the disease.*—When inflammation affects chiefly the anterior layer of the iris, and is not sylphilitic, it is generally subacute, and connected with strumous disease of the lining membrane of the cornea. In such cases, a change of colour is often hardly perceptible at an early stage, from the vessels not admitting many red globules; and it is chiefly in the more chronic stage that it occurs, the surface of the iris appearing of a pale yellow, or greenish yellow hue. In syphilitic iritis the anterior surface of the iris is often greatly inflamed, of a bright vermilion, in the early stage, and orange or yellow coloured afterwards, when lymph is thrown out. When inflammation affects principally the membrane of the uvea, it is generally subacute or chronic, and often connected with some deep-seated opthalmia, such as hyaloiditis or choroditis. In such cases very little or no change of colour is observed. Inflammation affecting principally the true substance of the iris, and extending more or less to both its surfaces, is by far the most common form of the disease, and the one in which the morbid changes in colour are most remarkable and constant. When only the smaller circle of the iris is inflamed, and generally it is the part first affected, the change in colour will not extend much beyond it. The same may take place when the inflammation is confined to the greater circle of the iris,—a comparatively very rare occurrence.

II. *Modification in the change of colour depending on the natural tint of the iris.*—This is the main cause of the variety in the change of colour, in similar stages of the iritis, in different persons. The morbid colour being always a compound of the natural colour of the iris with red, red and yellow, or yellow, according to the stage and severity of the inflammation. The following are the more common natural varieties in the colour of the iris:—Deep blue, or greyish blue; greyish blue with yellow markings, appearing greenish at a distance; basalt black; clove brown; hazel; citron, or wax-yellow. The first three varieties are most common in fair persons, the others in those of a dark complexion, though there are many exceptions. Besides these there are several minor natural varieties; but most of them may be referred to one or other of the foregoing classes. The whole iris is not always of the same colour; the smaller ring being frequently of a lighter or darker, or even of a totally different hue from the rest of it. Attention to this is of some importance, in judging of the morbid changes in colour. When the chief part of the iris is deep blue, the inner circle is often blueish grey, or *vice versa*. In other cases, a generally blue, or blueish grey iris, has an inner ring of a citron or wax-yellow colour. A dark iris with a yellowish or light olive or inner circle, is also frequently met with; but a blue iris with a hazel or inner ring, or a dark iris, with a light-blue one, are very rare varieties. The irides of the right and left eyes are for the most part alike; and when the colour of one has been changed by disease, it may, with very few exceptions, be correctly assumed to have been originally the same as that of the other. In some extremely rare cases the iris is of a different shade, or even of a totally different colour, at the opposite sides of the pupil.

The following are the changes of colour usually observed in a naturally full blue iris in the successive stages of inflammation, affecting its whole thickness, and allowed to go on till it produces permanent organic injury. At first the iris acquires a more or less deep purple tinge, from the combination of red blood with the natural blue of the part. In the next stage, when yellowish lymph begins to be exuded, and there is still much red blood in the vessels, the iris becomes almost quite black in some cases, but more frequently of a hornblende, or basalt black, with a tinge of green. In the third

stage, when a much greater quantity of lymph is exuded, the colour gradually acquires a greenish cast, very dingy and neutral at first, but brighter afterwards, and approaching to grass-green in the sequalæ of the disease, when the increased vascularity has quite subsided. This green colour is caused by the combination of yellow lymph with the natural blue of the iris.

The blackening observed in the transition stage of inflammation in a blue iris is most distinctly seen, and is of the darkest hue, in cases of severe traumatic general opthalmia, where, along with the extensive effusion of pus and lymph, there is very great vascularity. For a long time this change seemed to me quite anomalous and inexplicable, on the same principle as the other changes in colour, viz. the combination of their primaries. Theory suggested that the blue iris should become white rather than black, seeing that in this second stage of inflammation, it contained both blue, red, and yellow matter, which when combined, as is often done experimentally, form a somewhat whitish compound. After many experiments, I found that unless the primary colours be in certain proportions, the compound will be black instead of white; and I have since learned that dyers are well aware, that to produce the finest black, the goods should be dyed successively with all the three primary colours; a circumstance corroborated by a distinguished artist to whom I mentioned it.

Thus, the blackening of a blue iris, in the second stage of inflammation, is no longer an anomaly. On the same principle may be explained the ashy black colour (resembling protoxide of mercury), so generally observed in the first stage of inflammation in an iris, the natural colour of which is light or greyish blue, mixed with fine streaks of yellow.

The principles which determine the successive development of different colours in a naturally blue iris are equally applicable to other cases, where the original colours are different. The morbid colours being always the result of a combination of the natural ones, with red blood, red blood and yellow lymph mixed, or yellow lymph alone, as shown in the following.

TABLE *of the more common Changes in the Colour of the Iris, observed during or after Inflammation.*

	MORBID COLOURS.		
Natural Colour of the Iris, or of the inflamed portion of it.	First Stage of Inflammation, before lymph is effused.	Transition Stage—increased vascularity, and commencing effusion of lymph.	Third Stage, when lymph is effused, or in the Sequelæ of the Disease.
Blue.	Purple of a campanula, imperial, or plum shade.	Black, hornblende black, or greenish black.	Dingy green, sap green, or grass green.
Blueish grey, with yellow markings.	Basalt black, or greyish black.	Applebark green.	Yellowish green.
Basalt black.	Brownish black.	Chesnut.	Hazel, wood brown, light olive, or wax yellow, according to the depth of the original colour.
Clove brown.	Reddish black.	Lighter chesnut, or hazel.	
Hazel.	Brownish red, or tile red.	Wood brown, or very light hazel.	Tawny orange, or amber yellow.
Citron, or more or less of a yellow hue.	Deep orange.	Lighter orange.	Light yellow.
Transparent and nearly colourless—(*the anterior serous layer.*)	Arterial red.	Reddish orange.	Very light, or primrose yellow.

In the preceding table, the changes in colour observed in practice are almost identical with, or differ very slightly from, those which may be produced artificially by similar combinations.

The practical utility of a correct observation of the changes produced in the iris by inflammation is considerable, both in the diagnosis, and in the treatment of iritis.

1. *In the diagnosis.*—*(a)* To an experienced eye, the most unequivocal objective symptoms of incipient inflammation of the iris are a slight thickening or puckering, and a want of sharpness in its pupillary edge, along with a degree of muddiness in the anterior chamber, and diminished lustre of the pupil. Many persons, however, find considerable difficulty in appreciating these appearances in their very slightest form; and to them the change of colour is a much more striking symptom. *(b)* When the cornea is irregular or ulcerated, the proper sharpness and lustre of the pupil often appear defective when they are not so, owing to the irregular refraction of the cornea. In such cases, any change in the colour of the iris is nearly as perceptible as ever, and it then becomes an objective symptom of first-rate importance. *(c)* The nature of the change in the colour of the whole iris, or of certain parts of it, illustrates the stage of the inflammation; the general rule being, that the iris becomes darker in the earlier stage, and lighter afterwards, when lymph begins to be effused in considerable quantity. In applying this rule, regard must be had to the natural colour of the inflamed part. Thus, if the inner circle of an iris, naturally of a yellow hue, become somewhat orange, the first stage of inflammation is indicated; but if the same tint be assumed where the original colour is hazel or dark brown, then the third, and much more serious stage, is indicated. Again, a blue iris, with a yellowish green inner circle, may be a perfectly natural appearance; but if it be known or suspected that the original colour of its inner circle was blueish-grey, then this yellowish-green colour is a morbid appearance, indicating a present or past state of severe inflammation; so, in other cases—the great object being to observe accurately the existing colour of the larger or smaller circles of the iris, and to compare it with their natural colour.

2. *In the treatment of Iritis*, a minute attention to the colour of the iris is highly useful. *(a)* In determining when the employment of mercury becomes a *sine qua non*. Incipient rheumatic iritis may be often cured by leeching, colchicum, and sudorifics, which frequently require to be used for some time before they remove the disease. But, whenever there occurs a change in the colour of the iris, indicative of the commencing effusion of lymph, mercury (unless most especially contra-indicated by some other circumstances in the condition of the patient) must be administered, and speedily too, or else the mobility of the iris will be permanently impaired, or extensive adhesions and even closure of the pupil be almost inevitable. *(b)* In chronic cases, the progressive restoration of the natural colour of the iris is a good test of the efficacy of the means employed, whether mercury, iodine, or oil of turpentine; and for deciding on the propriety of continuing their use. *(c)* Whenever the change of colour in the iris indicates the recent and extensive effusion of lymph into its interstices, there is great danger of a slow and gradual closure of the pupil taking place for some weeks and months after all inflammatory action has subsided, and the cure apparently complete. In such cases, the daily use of belladonna, or hyosciamus, to keep the pupil moderately dilated, becomes an essential point of treatment. *(d)* When the pupil is closed, either by lymph, or by entanglement of the edges of the iris in a penetrating ulcer of the cornea, or in the cicatrix, after the extraction of a cataract, or from other causes, and an operation for an artificial pupil is contemplated, any change in colour, indicating the matting together of the iridal fibres with lymph, should be carefully noted. In such cases, the prognosis as to the probable utility of any operation, such as "incision," (*iridotomia*,)

or "simple ciliary separation," (*iridodialysis*,) the success of which depends on the contraction of the liberated portion of the iris, should be extremely dubious, and a preference given to "excision," (*iridectomia*,) or to compound ciliary separation," the separated portion being either drawn out and cut off, (*iridectomedialysis*,) or left strangulated in the wound of the cornea, (*iridencleisis*.)

Edinburgh Monthly Journal of Medical Science, Feb., 1841.

58.—TREATMENT OF SWELLED TESTICLE BY COMPRESSION.

By J. Dixon, Esq., Coleford, Gloucestershire.

[The following plan of treating orchitis, by strapping the testicle with adhesive, mercurial, ammoniacal, or iodine and belladonna plasters has already been pointed out in our second number for December, 1840. We need, therefore, scarcely again refer the reader to it. Fricke, of Hamburg, and subsequently, M. Ricord, of Paris, have been chiefly instrumental in introducing this excellent improvement into the practice of surgery. Mr. Dixon proceeds in his paper as follows:]

The difficulty experienced too frequently in remedying those chronic enlargements of the epididymis which remain after acute inflammation of the testicle, whether the consequence of gonorrhœa or injuries of that organ, will, I have no doubt, be obvious to many in the profession, as affording a considerable degree of annoyance to the patient, as well as some slight discredit to the practitioner. From the depending position of this organ, the high degree of vascularity which it possesses, as well as the readiness with which it throws out lymph into the surrounding tissues, or connecting medium of the convolutions of the vas deferens, all seem to conduce to the difficulty of the absorbents to remove the deposited lymph which they would naturally do in a comparatively short period in other parts of the body, after the more acute symptoms have been subdued by appropriate treatment.

The method I have adopted is the following: placing the patient upon his back, and seizing the testicle with the left hand, and applying slight pressure, so as to empty the veins of the part as much as may be practicable; then applying, with gradual pressure, a narrow piece of adhesive plaster from the commencement of the cord at the upper part of the scrotum, and encircling the whole of the testicle, without putting the patient to any severe pain: it will require, in the course of twelve or twenty-four hours, to be again repeated; owing to the diminution of the swelling, the effect of the pressure is consequently diminished. The usual purgatives and other anti-inflammatory medicaments ought not to be neglected; at the same time, some slight objections have been offered to this plan of treatment in the more severe form of orchitis, owing to the severe pain often experienced by the patient. I can state that the pain, however, is not by any means severe or continued, if the pressure be judiciously employed, and, therefore, ought to offer no insurmountable barrier to the adaptation of a remedy at once simple, scientific, and highly beneficial.

London Lancet, Dec. 5, 1840, *p.* 374.

59.—TREATMENT OF UN-UNITED FRACTURE BY COMPRESSION AND FORCIBLE APPOSITION.

By Sir Benjamin Brodie, F.R.S., &c., &c.

In a discussion in the Royal Medical and Chirurgical Society respecting

the union of fractures of the neck of the thigh bone, Sir Benjamin Brodie makes the following observations respecting un-united fractures:]

Some years ago he had made some experiments on the mode in which fractured bones united, and he had come to the same conclusion as Dupuytren, without having been aware that he had been pursuing the same inquiry. The result of these experiments had satisfied him that union at first depended more upon the neighbouring cellular tissue than upon the periosteum, whatever part the latter might afterwards play in the process. He might take this opportunity of remarking, that he had found the most successful plan of treating un-united fracture, to be that pursued by Mr. Amesbury, and consisting in the binding of the limb in an immoveable apparatus, by which the extremities of the fractured bone were kept in a state of forcible apposition for a long period. The plan was a very painful, but a very successful one. He had succeeded in procuring union, by this mode of proceeding, in one case in which the fracture had been un-united for two or three years, and a seton had been passed through it without benefit, the arm remaining dangling and useless. In the experiments he had alluded to, only one case of union by ligament occurred, and this was in a fracture of a femur of a rabbit. He had endeavoured to account for this deviation from the general rule, but had not succeeded.

London Lancet, Dec. 5, 1841, *p.* 381.

[On this subject there occurs a good illustrative case in Dr. Norris's Report of Surgical cases, treated in the Pennsylvania Hospital. It is given as follows:]

Michael Ward, ætat. 50, and enjoying good general health, was admitted September 14th, with an un-united fracture of the femur. He states that he received his accident in the middle of last February, by the fall of a bank of earth upon the limb. His left femur was broken obliquely in its lower third, together with both bones of the leg of the same side a short distance below the knee. After a treatment of seven or eight weeks with long splints, (probably Desault's,) he was suffered to get up and move about, the union of the bones of the leg being firm, though somewhat deformed, while the thigh was much deformed and un-united. In August he set out from Ohio for Philadelphia, and performed one-half the distance on foot, with the aid of crutches. On admission, the left limb was found to be two and a half inches shorter than that of the opposite side. The lower part of the thigh was enlarged, owing to a great mass of callus which had been thrown out around the seat of fracture, and was much bent outwards, the lower fragment being drawn to the outer side of the limb. When placed in the erect position, he was unable to bear any weight upon the limb, and upon attempting to do so the motion of the lower upon the upper fragment, was very evident both to the patient and observer. Strong extension had no effect in bringing down the limb to its natural length, and all that was proposed by the treatment was to produce union of the fragments, and, if possible, a diminution of the deformity, by rest and pressure without attempting to remedy the shortening. For this purpose, a roller was applied from the toes upwards, after which strong pressure was made over the projecting portions of bone by means of a bandage secured to a well padded long splint placed upon the inner side of the limb. This apparatus was continued until October 14th, the bandage being tightened every few days. At this date the limb was found to be free from swelling, and the deformity evidently less. Union also appeared to be firmer. The apparatus was re-applied, and in order to keep up as much pressure as the patient was able to bear, a tourniquet was applied immediately over the point of fracture. On the 31st of October the apparatus was removed for the purpose of accurate examination, and it was found

that the limb was lengthened half an inch since the commencement of the treatment; that the deformity was less, apparently from absorption of a portion of the callus which had been deposited on the outer part of the limb, and that no motion could be discovered at the point of fracture, or any grating sensation perceived when the weight of the body was borne upon it.

Dr. Norris observes that, in the first case, the non-union was probably the result of the want of proper support and pressure—in the second case, of the same circumstance, in addition to the existence of a fracture of the leg. For, where more than one fracture exists in the same person, firm union may take place in one, some time before it occurs in the other. Pressure and rest are best adapted to cases of no longer duration, and to young persons. Dr. Norris prefers the tourniquet to other means.

American Journal of the Medical Sciences, and Medico-Chirurgical Review, October, 1841, *p.* 553.

60.—ON CONGENITAL OPACITY OF THE CORNEA.

By S. Crompton, Esq., Manchester.

[In our first number we related an interesting case given by Mr. Walker of Manchester, of congenital opacity of the cornea, which that excellent practitioner considered to be owing to purulent ophthalmia before birth. In a paper published by Mr. Samuel Farrar, Surgeon, of Deptford, in 1790, cases of the same description are related. The cornea of both eyes, in one case, were opaque. But about ten months after birth the opacity diminished and sight was completely restored. The same thing happened in another case, in which sight was restored in about the same time. (See Medical Gazette, December 11th, 1841, p. 434,) Mr. Crompton relates his case, as follows: and we may here state that it was the younger of these cases to which Mr. Walker referred in his communication to which we have before referred.]

There are two brothers in Manchester who are commonly supposed to have been born with opaque corneæ. The elder boy is eighteen years old; the younger three; and they are the second and tenth of a family of ten children of the same parents: the eyes of the rest being perfect;

The right eyes of both brothers are staphylomatous; the staphyloma being much more prominent in the eldest boy.

Their left eyes agree in the following particulars:—They are very small and soft to the touch; the line of union of the sclerotica and cornea is irregular, and less distinct than is natural. The irides are blue, and very convex. The eyeballs are wanting in plumpness and rotundity, and look unfinished.

In the younger boy's left eye, an opacity of the cornea keeps a part of the pupil out of sight; and, at the upper part, there is an irregularity in the outline of as much of it as is visible. But the elder boy has a regular pupil, and the whole of his cornea is quite transparent saving a small portion of the lower part of it at its junction with the sclerotica, and I am not sure whether this opacity is not from an encroachment of the sclerotica at this point, and a result of the irregular line of union of the cornea and sclerotica, of which I have already spoken.

The mother states that on the day after he was born, she discovered that the eyes of the elder of these two boys were "not right." She was led to examine them by observing, when he was asleep, a prominence of the upper eyelid of the *right* eye. On looking at this eyeball, she discovered that it was far from being as it ought to be. It projected at that time as it does now but not so far. The front of the *left* eye was partly covered by a "pearl."

This opacity grew thin first of all at the outer edge of the cornea; that portion of it, which was at the nasal margin of the cornea, being the last to gain its transparency.

Her tenth delivery was attended with danger, and her surgeon tarried awhile with her. Before he left the house, the nurse discovered that the child's eyes were not right. They were shown to him immediately, that is to say, not later than one hour after birth. He gave her the same opinion that she got respecting her eldest boy, viz. that medicine would do no good. Most positively, there was no running of matter from this boy's eyes; there was no discharge whatever; neither were the eyes bloodshot, nor were the eyelids swollen.

Mr. Barton, the senior surgeon to the Manchester Eye Hospital remembers meeting Mr. Allen in consultation upon the youngest of these two children. He considered the eyeballs to be imperfectly developed, and from the testimony, he felt assured that the opacity of the cornea was congenital.

Medical Gazette, Dec. 11, 1841, *p.* 432.

[We give these two cases because it may happen at some time or other for any practitioner to meet with similar ones which he may not be able to account for; and if he were not able to refer to well marked cases of congenital disease, it would be at once supposed that the disease producing the opacity had been progressing after the birth of the child while he had neglected to notice it.]

61.—ON BAYNTON'S METHOD OF TREATING ULCERS.

By Joseph Bell, Esq., Barrhead.

[Mr. Bell brings forward twelve excellent cases to show the efficacy of this mode of treatment which he justly supposes has fallen too much into disuse. There is no doubt that the practice is excellent; but the troublesome attention which it constantly requires must always be an impediment to its general and continued use, especially amongst the classes of poor people in whom the most troublesome cases occur. Mr. Bell says:]

To explain at any length the method of this celebrated surgeon, may seem to some superfluous. It is, however, my decided conviction that the majority of practitioners are either ignorant of it, or do not put it into practice. Dr. Hannay, of Glasgow, is the only medical man that I either have seen using it, or heard recommending its employment.

Baynton's system consists of three parts:—First, straps of adhesive plaster, from two to three inches broad, and of sufficient length to surround the limb, and to overlap a few inches. These straps are to be applied by placing the centre of the strap exactly opposite the ulcer, over which the free ends are to be crossed, pulling them as tight as the feelings of the patient will permit. The first strap is to be placed a little below the lower margin of the sore; the second is to overlap it a little; the third to overlap the second a little; and so on till the ulcer is completely covered: a soft piece of cloth is then to be placed over the ulcer; but I frequently dispense with this. Secondly, a bandage is to be applied, from the extremity of the limb to the articulation above the sore. Thirdly, this bandage is to be kept constantly wet with cold water. The dressing to be changed every day, or every second day, according to the quantity of discharge and irritability of the ulcer. Such, then, is the Bayntonian system, which, when properly applied, is competent to cure, speedily and effectually, the irritable or inflamed, and the varicose, as well as the indolent or callous ulcer; proper attention, of course, being paid to

the improvement of the general health—a *sine qua non* in every plan of treatment.

In the absence of all practical experience on the matter, the system strikes us as admirably suited for "irritable ulcers," which differ chiefly from those of an indolent nature in an inflammatory state of the integuments, with infiltration into the adjoining cellular substance. No better means can be employed to remove these conditions than the bandage and cold water. The pressure removes the inflammation, empties and supports the overloaded and enfeebled capillaries. The cold water is a powerful agent in the removal of the cutaneous inflammation; by decreasing the high temperature of the part, it produces a sedative effect. But these are not the only benefits derived from the bandage and water; they also act as stimulants to the ulcer, and thus establish a new and healthy action in the sore, which is at the same time kept constantly clean. I humbly submit, if this be not as rational a plan to remove the inflammatory condition which surrounds these ulcers, as either leeching or poulticing; and then it has this very great advantage, that the patient can walk about during the time his sore is healing.

Medical Gazette, January, 8, 1841.

62.—NEW OPERATION FOR SECONDARY CAPSULAR CATARACT.

By M. Sichel.

Secondary capsular cataract is one of the most frequent consequences of the operation for cataract, either by extraction or depression. The extraction of secondary capsular cataract, through the cornea, is always a matter of great difficulty, because the surgeon often fails in trying to bring the opaque membrane forwards by means of the forceps or hook; it generally escapes backwards, and many unsuccessful attempts are made before it can be seized with the instrument. Prolapsus of the iris, followed by staphyloma, irregularity, or even obliteration of the pupil, may result from such attempts. In order to avoid these accidents, M. Sichel proposes to extract the opaque capsule through the sclerotic, in a manner somewhat different from that practised by Bell, Earle, and other ophthalmologists, for the removal of lenticular cataract. The usual way of dividing the sclerotic coat has been by a *vertical* incision; hence, when the external rectus muscle contracts, it constantly separates the edges of the wound, and diminishes the chances of success. M. Sichel, then, applies this method to secondary capsular cataract; but instead of a vertical incision, he makes a small transverse one, parallel to the fibres of the external rectus muscle, as high up as possible, and uses an extremely fine forceps. Four successful cases are given in illustration of this method.

Provincial Medical and Surgical Journal January 9, 1841, *p.* 295.

63.—MODE OF PREVENTING CONTRACTION AFTER BURNS.

By the Late—Earle, Esq.

[We give the following extract from the Lectures of this lamented Surgeon in order that the practice may be diffused as much as possible.]

I am quite ready to admit that it is not in our power to arrest the law of nature, by which a cicatrized surface becomes smaller, and occupies less space than the original wound; but it is in our power, in most cases, to direct and modify that which we cannot wholly prevent; and thus, at all events, to counteract its injurious effect. . . . To take the upper extremity as an example, I will suppose a case, where the whole integuments on the inner and

front part of the arm and forearm have been destroyed. If such extremity be kept carefully extended on a splint, *not only during the whole process of healing, but long subsequent to the perfect cicatrization*, you will find that the cicatrized surface will diminish in a circular direction, drawing the healthy integuments together from side to side, but that no contraction will take place in the long axis, in which alone it can impede the due motions of the limb. This permanent extension should be persevered in during the *day and night*, until all changes have ceased, and the cicatrix has contracted to its smallest dimensions. Care, however, should be taken, during this time, to give passive motion to the different joints, by which the proper secretion of synovia will be kept up, and the eventual free use of the limb will be ensured. This plan of maintaining the limb in a state of permanent extension should be commenced as soon as the wound has begun to granulate.

Mr. Earle's Lectures, British and Foreign Medical Review, April 1st, p. 315.

64.—CHLORIDE OF ZINC IN ACUTE AND CHRONIC GONORRHŒA.

By M. Gaudduiot.

After a large number of observations the author of this memoir concludes that the chloride of zinc, properly diluted, has a remarkable power in curing simple gonorrhœa of the urethra and vagina, also in dilating the urethra, and thereby ameliorating strictures. He believes that it is always by an inflammation *sui generis* that the discharge is cured, and that injections of the chloride of zinc determine a series of phenomena not produced by other caustics. It is only necessary to use a few drops of injection, as the extremity of the urethra is the only part to which it should be applied. To combat vaginal gonorrhœa in women M. Gaudroit proposes a new proceeding, which consists in the use of solid vaginal suppositories, composed of a paste made to melt easily, and containing a certain quantity of liquid chloride of zinc and sulphate of morphine.

In men the author employs the following formula:

℞. Liquid chloride of zinc, 24 to 36 drops. Distilled water four ounces. Agitate and filter through paper.

A small quantity of this solution should be injected about an inch along the urethra, two or three times a day.

The vaginal suppository which he employs is formed of,

℞. Liquid chloride of zinc, 5 drops. Sulphate of morphine, half a grain. Mix with three drachms of the following paste. Mucilage of gum tragacanth, 6 parts. Powdered sugar, 3 parts. Starch powder, 9 parts.

To cure radically a gonorrhœa in man, it will ordinarily suffice to apply two injections a day for two or three days. The first injections are almost always followed by more or less swelling of the glans penis, but this does not prevent their continuance.

In women four or six suppositories, one being introduced every day, or every second day, suffice to obtain a cure. The first introduction frequently occasions a swelling with more or less heat of the vulva, but these phenomena are soon completely dissipated. Emollient baths have in most of the cases been employed for this purpose.

British and Foreign Medical Review, April, 1841, *p.* 529.

65.—RADICAL CURE OF VARICOCELE BY INVAGINATION AND SHORTENING OF THE SCROTUM.

By Dr. Lehmann.

The mode of operating here recommended is very similar to that which the author has in several cases adopted successfully for the radical cure of hernia. A portion of the relaxed and elongated scrotum is to be pushed up on the forefinger of the left hand, and *invaginated* into the part above it, till the finger reaches the external abdominal ring. Holding the parts in this position, a broad curved needle, with a double thread passed through an eye near its point, is to be carried along the left finger, through the bottom of the inverted portion of the scrotum, and to be made to penetrate it and the integuments immediately over the external ring. The thread is then to be removed from the eye, and the needle drawn back and again carried through the inverted portion of the scrotum and the integuments at a distance of about half an inch from the parts previously penetrated. The threads passed through the two apertures being now drawn, the invaginated portion of scrotum may be pulled up to any desired height; in general it must be drawn very nearly to the external ring; for in the subsequent progress of the cure the relaxation of the parts is so great that the folds and wrinkles thus produced are almost entirely obliterated. The threads then having been drawn must be knotted, and the parts thus tied up must be left for eight or nine days, under a soothing and cooling regimen, by which time adhesion will have taken place between them at the cut edges, and, by the excoriation which the discharge produces between the opposed surfaces of the inverted portion of the scrotum and that into which it is pushed.

The author relates six cases in which his mode of operating was adopted with success; but in none of them had sufficient time elapsed before the publication of the paper to enable one to say whether this measure was likely to be more permanently beneficial than the others which have been proposed for curing varicocele by bringing on the same change in the scrotum. Of all these the simplest and, as far as we have seen, the most successful, is that recommended by Mr. Wormald. (See British and Foreign Medical Review, vol. VI., p. 274.)

British and Foreign Medical Review, April, 1841, *p.* 529.

66.—THE STEAM APPARATUS.

The application of steam to the surface of the body, as a remedy in certain diseases, especially of the skin and joints, has been long known and appreciated. But the use of the vapour bath has been attended with so many inconveniences, and, when the requisite precautionary measures, either before or after its operation, have been neglected, with so many evil consequences, that lately it has been but seldom had recourse to in hospital, and scarcely ever in private practice. An ingenious and simple contrivance has, however, been lately invented by a Frenchman of the name of Duval, which seems to remove all the difficulties above alluded to, and which, from the success which has attended its use during the last two years in the hospitals of Paris, and lately in London, promises to become an important addition to the "armamentarium" of the medical practitioner. The apparatus in appearance is somewhat elegant, is comprised in so small a space that it may readily be carried in the hand, and may be applied either locally or generally, as circumstances may require, with equal facility. It consists of a reservoir for the water, capable of containing a little more than a pint, supported upon three metallic rods, and having a coverlid which is furnished with two

openings, one at the centre and one towards the side. From that in the centre arises a tube, terminating in a hollow globe, having attached to it, and communicating with its interior, three short branches furnished with moveable lids. A similar branch is connected with the opening at the upper edge of the reservoir. Beneath, on a pan supporting the parts already described, is placed a spirit lamp, having four burners, and these, when lighted, quickly vaporize the water in the reservoir above. The steam is then conducted to the globe, and thence, by means of short pipes slightly curved, and which may be connected with any one or all of its branches at pleasure, to the part of the body required. The force and the quantity of vapour expelled, is regulated by a key at the side of the principal cylinder, and which will diminish or enlarge its diameter much on the principle of the ordinary stopcock, while its escape upwards is entirely and instantly prevented by exposing the opening at the edge of the reservoir. The way in which it has been used for affections of the joints is simply this: the patient covers the wrist, for instance, with a piece of flannel, large enough for its edges to fall on a pillow, which is placed to support the fore-arm. The nozzle of one of the tubes is then placed beneath the flannel, and the steam allowed to escape. The joint thus enveloped in steam, has usually been allowed to remain for about half an hour; the application being made once a day, or oftener, as the circumstances require. Various modifications of the tubes for different purposes are capable of being adjusted to the openings in the reservoir; but the above-mentioned forms have been found sufficient for such cases as those about to be noticed.

The vapour bath in this form has been introduced into Guy's Hospital within the last two months, and has since been used extensively, and with considerable benefit.

The apparatus is thus used: The patient lies supine in bed, and three or four slender arches of wood, or other convenient material, are placed across the body, so as effectually to raise the blanket from any contact with it. The apparatus is supported on a stool at the foot of the bed, and one of the pipes allowed to project into the arched cavity, which soon becomes filled with the vapour. In this way all the inconveniences attending a removal to and from the bed are of course got rid of.

Provincial Medical and Surgical Journal, Dec. 19, 1840, *p.* 205.

[The editors of the Provincial Medical and Surgical Journal add that the invention of the steam apparatus, is due to Dr. Macartney, who brought it into notice in 1820.]

67.—SOLUTION OF COMMON SALT AS AN EYE LOTION IN OPHTHALMIA.

By Dr. Isaac Hays, Surgeon to Wills Hospital, Philadelphia, Physician to the Orphan Asylum, &c., &c.

Dr. Hays strongly recommends a saturated solution of common salt as a lotion in ophthalmia. He thinks that in many cases of chronic granular ophthalmia, it has contributed more to the cure than any other application. He was led to its employment on the recommendation of an old woman, and has since then employed it in numerous cases with the most striking benefit. In some conditions of chronic granular ophthalmia, as where the eye is irritable, with injection of the conjunctiva of the ball, and lacrymation, he knows of no remedy which affords such prompt and marked relief.

American Journal of Medical Science, and Edinburgh Medical and Surgical Journal, Jan. 1841, *p.* 260.

68.—TREATMENT OF FISSURES OF THE ANUS BY RHATANY ROOT.

By Professor Trousseau.

M. Bretonneau appears to have been the first who recommended the rhatany root for the cure of fissures of the anus. He was led to try its effect in this complaint from remarking, that constipation is in most cases the cause of the fissures, and the great obstacle to their cure. That this constipation is in a great majority of cases attended with a dilatation of that portion of the rectum immediately beyond the sphincter, which forms thus a place of lodgment for the feculent matters, which sometimes amass there to such an extent, as, when expelled, to cause pains equal in severity to those of delivery. To correct this morbid state of the gut, whether it was accompanied with fissures or not, and restore it to its original tonicity, was the object which M. Bretonneau had in view in employing the rhatany root. In several cases, then, of this state of the gut, attended with fissures of the anus, he found that he effected a cure, both of the constipation and the fissures, by administering in glyster, the extract of rhatany root, with the addition of a small quantity of the alcoholic tincture of the same.

Since the period when this mode of treatment was first made known, M. Trousseau has cured four cases, M. Marjolin one, and M. Berard, junior, two.

The mode in which M. Trousseau employs the rhatany root is the following. He administers to his patient every morning a glyster of marsh mallows decoction, or simply of water, with the addition of olive or almond oil, in order to clear out the intestines. Half an hour after the intestine has been empted, he gives an injection composed of thirty-eight drachms of water; one to two drachms and a half of the extract of rhatany; and five drachms and a half of alcohol, which the patient is desired to retain, if possible. The same styptic injection is repeated in the evening.

When the pain is once moderated, only one glyster is given daily; and when the cure appears to be completed, every alternate day only, for a fortnight longer.

He says he has derived considerable advantage from the employment of an ointment composed of one or two parts of the extract of rhatany to five of the butter of cacao.

Edinburgh Medical and Surgical Journal, Jan., 1841, *p.* 263.

69.—SUSPENSORY APPARATUS IN THE TREATMENT OF FRACTURES OF THE LEG.

By J. Hale, Esq.

[Mr. Luke gives an outline of his apparatus for suspending the fractured limb, which, although not new, deserves to be again pointed out to the profession as many will no doubt be ignorant of it.]

The apparatus is very simple in its character, consisting merely of a leg-rest, for which a long thigh splint, or a narrow board may in its absence be used, as an imperfect substitute, two splints, and a cradle. The first, or leg-rest, may be made either of wood or sheet iron, the upper surface of which is hollow, and roughly shaped to the form of the back of the leg. An oval hole is made at its lower extremity for the reception of the heel, and at the upper extremity it is sloped off to adapt it to the very trifling angle formed between the thigh and leg when the latter is suspended. The rest is of sufficient length to reach from the foot to about five inches above the knee-joint on the posterior surface of the thigh, and so fitted to the ham as to afford sup

port to the extremities both of the tibia and femur, and to remove all strain from the ligaments by which they are united. At the lower extremity is attached a foot-piece ten inches in length, and at a right angle with the rest, but capable of being inclined to either side should the position of the foot, which it is intended to support, so require. The rest is rounded on its under surface, and by being divided in the middle into two parts, which overlap each other, is capable of adaptation to the various lengths of the legs of different individuals, and of being securely fastened by a thumb-screw placed underneath, when it has been properly adjusted. The maximum length to which it can be adjusted is about twenty-six inches, the minimum length about twenty-one inches. Its breadth, from side to side, at the upper extremity, is five inches, and at the lower extremity four inches.

The two splints and the cradle, being similar to those in ordinary use, need not any description. The latter, however, should be made of iron rod three-eighths of an inch in thickness. The dimensions of the cradles in use at the London Hospital are sufficiently ample for the purpose of suspension, and admit of being covered by the bed linen. They measure in length about fifteen inches; in height from the bed, fourteen inches; and in the width of the opening, fourteen inches.

In applying the apparatus to its proper use, the leg-rest and splints being sufficiently padded, the fractured limb is adjusted on the former, and secured by the latter, placed one on each side, and fastened by tapes carried round the whole in the usual way. This being satisfactorily accomplished, the rest, &c., is suspended by means of two other tapes, passed under it and over the middle bar of the cradle, now put in a convenient position over the limb. One of these tapes should be placed near to the ankle-joint, and the other a little below the knee, and both so arranged as to slide easily on the bar above and the leg-rest beneath. In suspending the apparatus care should be taken that it be not elevated too much, since two inconveniences arise therefrom, the one of which results from the too great elevation becoming irksome to the patient: the other from the suspending tapes becoming too short to admit of the apparatus swinging sufficiently easy to follow the motions of the body. The only elevation necessary for the attainment of the required objects, is that which will enable the rest to swing without coming in contact with the surface of the bed. But this contact is sometimes caused by the sinking of the cradle on a soft bed—an occurrence, however, which is easily obviated by placing a thin board under it of a size somewhat larger than is sufficient to cover the area on which the cradle rests.

Medical Gazette, January 22, 1841, *p.* 652.

70.—UNGUENTUM ÆRUGINIS IN BURNS AND SCALDS.

By Edwyn G. S. Gaozey, Esq., Cambrone.

The best treatment that I have found, as the first to be adopted in the above injuries, is the application of the unguentum æruginis, spread thickly on linen and the injured parts to be completely covered with it. This ointment affords immediate relief, taking out the fire (as it is, in common parlance called,) sooner than any other application: and, if early applied, will prevent vesication. I have been in the habit of using it in cases, not extensive, for twenty years. The following cases will illustrate its efficacy; and, I believe that however extensive the injury may be, this is the remedy that will afford the quickest relief, being at the same time easily managed.

Mary Trevan, on the night of the 14th of Dec., 1840, was sitting up with a sick friend, who was labouring under a very severe relapse of puerperal peritonitis. While seated before the fire in the bed-room, her head enveloped

in a child's robe, she fainted and fell on the fire, her face resting on the upper bar of the grate; the sick woman heard the fall, saw the flame, but was unable to get out of bed; but fortunately, her former attendant who, fatigued, was lying beside her soundly asleep, she succeeded in awaking; the latter got out of bed, and found Mary Trevan, as above described, with her cap and the robe in flames, and still insensible. She threw her back, put out the flame, and in so doing severely burnt her own hands. I was not called to the case until half an hour had elapsed. On my arrival, I found the right side of Mary Trevan's face, her throat, nose, eyelids, mouth, and forehead completely roasted. I immediately covered the parts with the unguentum æruginis: the pain was almost immediately relieved. On the following morning, six hours after the accident, I removed the plasters, found the parts not the least inflamed, and my patient easy and comfortable; I renewed the application, and let that remain twelve hours; since which time all the parts have sloughed.

My second application is, either equal parts of olive oil and lead plaster, chalk ointment or lead liniment. This latter I have successfully used in extensive burns as the first application, but shall now abandon it for the unguentum æruginis, to which it bears no comparison. The formula for the lead wash liniment is as follows:

℞ Superacetate of Lead, ℈ij.; Water, ℔j.; Olive Oil, ℔ss. M.

To be spread with a feather over the part, and covered with a linen cloth, and renewed occasionally; the granulations to be touched daily with a caustic lotion. This is also an excellent application to the injuries of hands when burnt by the explosion of gunpowder.

London Lancet, Feb. 13, 1841, *p.* 726.

71.—NATURE AND TREATMENT OF CHOKING.

By Dr. Marshall Hall, F.R.S., &c., &c.

Choking is only another form of the croup-like convulsion, arising from a more sudden but less permanent *cause*, upon *other* incident excitor *nerves*; and it is to be treated upon precisely similar principles; *the cause must be effectually removed, and as speedily as possible.*

I was witness to a case of choking the other day; respiration was arrested; there was a fearful struggle for breath; not a moment was to be lost; I took the boy and placed him between my knees, so that I could make free pressure on the abdomen, while I placed one open hand on the posterior part of the thorax, and struck with the flat part of the other, gently closed, on the anterior, briskly, forcibly; the latter part of the operation was promptly performed, and the little patient was instantly relieved.

London Lancet, March 6th, 1841, *p.* 836.

72.—ON THE TREATMENT OF DEAFNESS.

By M. Petrequin.

Since the publication of M. Petrequin's memoir on the treatment of deafness by alum gargles and insufflations, (see Medico-Chirurgical Review for July, 1839.) Various experiments have been made in different parts of France and Belgium, to ascertain the effects of these remedies, and the Royal Academy of Medicine has directed its attention to the subject in the course of last year. A lengthened and very favourable report has been recently laid before the Medical Society of Lyons, by M. Brachet, of which the following brief account may be interesting to our readers.

After alluding to M. Petrequin's opinion, that the use of the Eustachian tube is similar to that of the holes made in a drum, viz: to renew the air within the cavity of the tympanum—and presenting an abstract of the eleven cases reported at length in the memoir, the following important conclusions drawn by M. B. from his experience are given:

1. That deafness is of very frequent occurrence in old people, in whom the mucous membranes do not perform their functions healthily, and who are subject to catarrhal congestions; also in those persons who have been subject to any of the numerous forms of inflammation of the pharynx.

2. That the inspection of the throat furnishes a means of exploration which greatly facilitates the diagnosis, by often revealing a chronic and indolent inflammatory state of its mucous membrane.

3. That Sir A. Cooper was mistaken in considering the existence of a humming noise in the ear as a symptom exclusively of nervous deafness; a form of the infirmity which is also of much less frequent occurrence than he supposed.

4. That it is a serious error to consider as incurable all cases of deafness, in which the patient cannot hear the ticking of a watch placed between his teeth; and that it is highly probable that many persons are from this mistake left without medical assistance, which, if applied in time, might have relieved the infirmity.

5. That the diagnosis of obstruction of the Eustachian tube, easily established when redness of the pharynx exists, is much less so, when this has disappeared, and when the lesion of the tube alone remains.

M. Petrequin, however, is of opinion that we may suspect the existence of this lesion by the varying condition of the sense of hearing in different states of the weather, and when it is somewhat better, for a longer or a shorter period of time, after a fit of coughing or sneezing.

6. That the prognosis or chance of cure in this form of deafness is by no means so unfavourable as B. Bell and Sir A. Cooper have alledged; that often it may be cured by fluid or gaseous injections, or by cauterization of the opening of the Eustachian tube in the throat, or by the use of alum applied either in the dry or liquid form to the back of the fauces—as a gargle, or as a powder mixed with sugar and insufflated upon the fauces, or lastly, the direct application of a stick of alum—recommended so strongly and used so successfully by M. Petrequin. He believes that this salt has a special effect on the pharyngeal membrane, independently of its merely astringent operation. However this may be, it would seem that it has a most beneficial influence on many maladies of the mouth and fauces. M.M. Bretonneau and Pommier have strongly recommended it in the treatment of diptherite, Signor Bennati in various affections of the larynx, and M. Velpeau in diseases of the throat. Its administration is easy, and does not interfere with the employment at the same time of other remedies, as antiphlogistics, revulsives, purgatives, cauterisation, the catheterism of the Eustachian tube, and the baths of compressed air, which have been so successfully used by M. Pravaz.

Hitherto no trial has been made of injecting a weak solution of alum directly in the Eustachian tube; but it is more than probable that the practice will be found highly useful in many cases."—*Bulletin Medical Belge.*

Remarks.—The reflections of M. Petrequin, based as they are upon the results of clinical experience, are certainly well deserving of attention. We should suggest the addition of tincture of capsicum to the alum gargle, as rendering it probably still more efficient in dissipating the chronic inflammatory state of the fauces and pharynx, which according to his observations, is so frequent an accompaniment of deafness.—*Rev.*

Medico-Chirurgical Review, April, 1841, *p.* 503.

73.—TREATMENT OF GONORRHŒA WITH CUBEBS AND ALUM.

A correspondent in the Journal des Connoissances Medicales recommends very highly a combination of powdered cubebs and alum in the treatment of gonorrhœa, and adduces several cases in illustration of its efficacy. The formula, which he uses is the following: Two ounces of cubebs and half an ounce of powdered alum are to be mixed well together and divided into nine doses, of which one is to be taken three times in the course of twenty-four hours.

A cure is said to be usually effected in from six to eight days.

Remarks.—It is more than probable that alum has not been used in cases of gonorrhœa so much as it deserves to be. That the salt is rapidly absorbed into the system, and is eliminated, in a great measure, by the urine, appears from numerous experiments.

Medico-Chirurgical Review, April, 1841, p. 514.

74.—APHORISMS OF PRACTICAL SURGERY.

By M. Dupytren.

Dr. Bigal, a pupil of the late Surgical *Chef* of France from the year 1818 to 1822, has published a series of aphorisms drawn from the lectures delivered by him at the Hotel Dieu. They amount to ninety; we select what seems to us to be the most valuable.

1. When the tibia and fibula are fractured at the same time, the seat of the fractures of the two bones is never at the same point.

2. The fracture of the upper part of the fibula is always a direct fracture, and is never produced by a *contre-coup*, as *Pouteau* has asserted. The patients may be able to walk about immediately after the accident. It differs from fracture of the lower part of the bone, both in its producing cause, in the absence of displacement of the fragments, and lastly, in its mode of treatment, as nothing is required for the cure but rest.

3. Fracture of the lower end of the radius is often mistaken for luxation of the carpus backwards, and the true nature of the accident is not discovered during the formation of the callus. It is then found that the carpus projects backwards, and the ends of the radius forwards; that the extremity of the ulna projects towards the inner side of the fore arm; that there is a sinking in of the radius, as if it had been cleft with a hatchet; and that the interosseous space, so necessary to the movements of rotation, is effaced.

4. Surgeons are very apt to commit mistakes in their diagnosis of the different fractures to which the fore-arm is liable; and yet it is most necessary for the judicious treatment of each, to have formed an accurate opinion of what accident has taken place. The most frequent fracture of the fore-arm is that of the radius alone; next that of the two bones together; and lastly, that of the ulna alone. In the treatment of fractures of the fore-arm, it is always proper to place two graduated compresses, one on the palmar and the other on the dorsal surface of the limb, and also two splints, and a roller to be passed circularly round: this bandage has the advantage of keeping the two bones apart and of maintaining the interosseous space.

5. A fracture of the patella is never united by a perfectly formed callus within eighty days or so. The provisional callus, which exists at the end of about thirty days in other fractures, is not sufficient here.

6. What renders the consolidation of fractures of the patella difficult, is that the fibrous tissue, which is necessary to the formation of the definitive callus, exists on the anterior surface only, and not on the posterior surface of this bone. The neck of the thigh-bone is nearly in the same condition.

7. Whenever, after forty or fifty days of the treatment of a fracture, the callus becomes painful, we have reason to fear that it either has given way, or is about to give way, and that the limb will become deformed.

8. Hæmorrhage from the ear, accompanied with coma, almost invariably indicates a fracture of the base of the skull.

9. Dislocations of the phalanges are usually very difficult to be reduced; much more so than those of large joints. The cause of this may be, that the lateral ligaments remain entire; but Dupuytren was of opinion that it was attributable chiefly to the displacement of the tendons, and their escape from the grooves in which they play.

10. There is one sort of luxation of the shoulder, which is exceedingly difficult of reduction; viz. that in which the head of the humerus is directed inwards and upwards, and which is usually occasioned by a fall down a staircase. The displacement is to a considerable extent; the head of the bone touching the clavicle, and being situated above the level of the coracoid process.

Dupuytren determined by numerous experiments on the dead body that the main obstacle to the reduction is that the beak of this process is often entangled in the substance of some tendon or muscle; when such is the case, no mechanical effort can overcome the resistance without danger.

11. Various accidents may arise from falling with force upon the feet; as, for example, fracture of the heads of several of the metatarsal bones, fracture of the os calcis, rupture of the vault of the foot in consequence of the ligaments being lacerated, luxation of the astragalus, and comminuted fracture of the tarsal extremities of the tibia and fibula.

12. No disease is more difficult of cure than paralysis of the arm induced by dislocation of the humerus. The paralysis seems to arise from the stretching, compression, and perhaps also partial rupture of the nerves, which form the brachial plexus. Often no remedial means are of any avail.

13. Congenital ruptures present this peculiarity, that the seat of their strangulation is most frequently in the neck of the herniary sac, and not at the ring. Wilmer has made this remark; and Alanson also has observed, that almost all the cases, in which the stricture is situated in the neck of the sac, are cases of congenital hernia.

14. The strangulation at the orifice of the herniary sac is very common, whereas it rarely takes place at the orifice of the ring;—this opinion is not shared by all authors on the subject. (Indeed the very opposite doctrine is maintained, we believe, by many surgeons. Were Dupuytren right, the operation of dividing the ring without opening the sac would be almost invariably fruitless.—*Rev.)*

15. Whenever vomiting ceases during the inflammation occurring in cases of hernia, we may be almost assured that the intestine has become gangrenous.

16. There are few patients so apathetic and *insoucians* as those affected with diseases of the urinary passages. (We should not have thought that; urinary and rectal diseases have usually appeared to us to give rise to more than ordinary anxiety and depression. This is often the case in *renal* disease.—*Rev.)*

17. Few diseases are more difficult to cure *radically* than a very tight (tres grande) stricture of the urethra. For, after the canal has been widened by the prolonged use of bougies, there is always a great tendency to a relapse of the disease. It is then that cauterisation becomes useful, because we thus obtain a cicatrix *moulded* upon the bougie.

18. There are cases of stricture, &c., in which the keeping of an instrument in the urethra instead of being a means of cure, becomes actually an obstacle to it: Dupuytren used to cite several instances of urinary fistulæ cured by the mere withdrawal of the sound.

19. All the diseases which proceed from contraction of the urethra, are almost invariably the result of previous attacks of gonorrhœa. The size and force of the stream of urine gradually becomes less and less; then it escapes only in drops, and at length there is perhaps a complete retention—a state that is usually followed either by paralysis of the bladder, or by rupture of the urethra at some point, and the effusion of the urine into the cellular substance of the perineum.

20. We frequently meet with abscesses about the anus, or in the perineum in phthisical patients; and it is often dangerous under such circumstances to operate, as the thoracic symptoms are very apt to increase, when the local disease is meddled with.

21. Ulcerations situated between the toes are usually very difficult to heal; this seems to be owing to the lodgment of the discharge, the admixture of the perspirable matter with it, and the constant contact of the ulcerated surfaces.

22. Of all cases of caries, the most dangerous are those in which the sternum is affected; for, when once the spongy texture of this bone becomes diseased, very troublesome fistulæ are formed, and the patient generally sinks under the effects of the disease.

23. Caries of the crest of the os ilii is a not unfrequent cause of symptomatic abscess in the lumbar and sacral regions.

24. It is a fact of almost constant occurrence, that diseases of the upper part of the thigh are felt, so to speak, at the knee, and also that those of the upper part of the humerus are felt at the elbow.

25. After amputation of the limbs, affections of the chest often supervene. Whenever we have cause to apprehend this occurrence, we should have recourse to blisters over the chest.

26. It is a curious circumstance, that in certain individuals, after lithotomy or other great operations, an abscess is apt to be formed in the calf of the leg: we cannot form any idea how this should be; but so it is.

27. In hospitals we often observe cases in which a succession of abscesses, in almost every part of the body, takes place, without any previous local or general inflammation. Such cases surely afford a proof of a purulent diathesis of the system.

28. Ambulatory or erratic erysipelas usually terminates in the formation of abscesses. These abscesses generally form without pain, and often without the patient being at all aware of their developement. Such an occurrence is too frequently the image and counterpart of what is going on in some internal part; a slow inflammatory action is set up and terminates in suppuration, without either pain, fever, or any outward symptom being manifested.

29. It is a well-known fact that all abscesses caused by small-pox exist between the periosteum and the bone, with tumefaction of the latter, and subsequent formation of a sequestrum; but, in the majority of cases, this cause produces only a swelling of the bone with denudation. It is important to distinguish these two sets of cases.

30. Syphilitic exostoses do not always disappear, although their primary cause has been entirely removed.

31. The sudden extension of the fingers, when they have been long bent, (in consequence, for example, of the contraction of the cicatrised integuments after a burn,) is not unfrequently followed by gangrene. The extension should, therefore, be slow and gradual; and we should avoid dividing or excising the bridle caused by the contracted cicatrix.

32. It is not prudent to divide the frænum for phymosis during the existence of a gonorrhœal discharge, as the wound is then apt to degenerate into a troublesome ulcer.

33. In all diseases of the neck of the uterus, the posterior lip of the os tincæ is more deeply affected than the anterior one.

34. In general, in affections of the brain, the effects of purgatives on the bowels are much less powerful than usual; for example, five or six grains of tartar emetic, and several ounces of Epsom salts, will often not produce either vomiting or purging. In these cases the oleaginous purgatives, as castor oil, croton oil, &c., succeed best.

35. Hiccup, occurring in the course of diseases, is usually only a nervous complaint. Shivering is a much more dangerous symptom; it generally indicates the developement of some internal mischief.

36. Patients, suffering from extensive and severe burns, have almost always a very constipated state of bowels. We should not be too anxious to remove this state, as it does not seem to give rise to any inconvenience; and when strong purgatives are used, a most troublesome diarrhœa often ensues.

37. In the majority of cases of fatal burns, the internal surface of the stomach and of the intestinal canal is found to be highly injected. In the treatment, therefore, of severe injuries of this sort, the surgeon's attention should be directed to the condition of these parts.

38. Very severe burns often induce fatal tetanic symptoms.

39. Enemata with laudanum are the best means that we can employ to relieve the accidental and transitory delirium which often accompany surgical diseases.

40. When a cataract forms in youth, it is almost always in the membrane of the lens: whereas, in old age, it is the substance of the lens itself that becomes opaque.—*Journal des Connoisances Medico-Chirurgicales.*

Medico-Chirurgical Review, April, 1841, *p.* 514.

75.—ON THE RADICAL CURE OF HERNIÆ.

For several years past the attention of surgeons has been directed to discover a safe and effectual method of obtaining a radical cure of reducible herniæ. It is almost unnecessary to state that all the proposals to effect this most desirable object by the mere external application of astringents and such like remedies have proved on trial quite nugatory, and that one or two of the operations which have been suggested are not without considerable danger.

A distinguished surgeon of Paris, M. Belmas, devised a plan to obliterate the herniary sac without leaving any wound in the integuments. He proposed to introduce, by means of a canula in form of a trocar, a small portion of gold-beater's skin into the serous tunic of the hernia, which was to be left there so as to excite an exudation of plastic lymph, and thus cause the *trajet* of the hernia to be firmly plugged up. Although a few cures have been effected by this mode of procedure, M. Belmas has more recently substituted for the gold-beater's skin, which he used in his first experiments, minute filaments of animal matter, which he inserts and deposits in the root of the herniary sac by means of a small larding-pin (lardoire).

Mr. Jameson, an American surgeon, has reported a case in which he effected a cure in the following manner. The herniary envelopes being divided as in the operation for strangulated bowel, he cut a portion of the integuments in the form of the blade of a lancet, and folded it back upon itself, securing it in the ring so as to plug up its *trajet*. We are not aware that this plan has ever been tried in France; it may indeed succeed, but it cannot be altogether free from danger.

M. Gerdy has proposed another method, which is certainly more safe, but is unfortunately much more uncertain. It consists in pushing up along the inguinal canal a fold of the integuments of the scrotum, in the form of the finger of a glove, and then securing this fold in its new situation by transfixing it with a strong thread by means of a needle contrived for the purpose.

This operation has now been performed a good many times; but not only has it failed in several instances, but it has even been followed by fatal consequences in more than one case.

As to the proposal of M. Bonnet, of Lyons, to transfix the sac with several needles to be left in for some days, and that of M. Mayor, to substitute strong threads, like a seton, in place of the needles, M. Velpeau is of opinion, that in neither of these ways can we hope to effect more than a partial closure of the sac, and, therefore, that we cannot count upon a radical cure of the hernia.

In 1836, M. Velpeau tried the effect of iodine injections into the sac of a reducible hernia, and repeated the experiment on two other patients; but the difficulty of reaching the sac with certainty, and the unsatisfactory results obtained in these three cases, are serious objections to the practice; and M. Velpeau himself, in the last editon (1839)of his work, alludes to it without approbation.

During the course of last year, he tried another method in two cases. This consisted of three acts or elements: a subcutaneous *incision* on the principles so ably insisted upon by M. Guerin in the surgical treatment of so many diseases, *scarification* of the interior of the sac and especially of its internal aperture, and lastly, *compression* of the entire length of the inguinal canal. The left forefinger being first pushed into the external inguinal aperture to the depth of half an inch or so, a bistoury is slided along the nail and inserted through the integuments in a direction backwards and outwards; the finger is then withdrawn and the cutting edge of the instrument turned against the iliac parietes of the abdomen, and in such a manner as to make numerous scarifications, in various directions, without endangering the epigastric artery: the bistoury is then withdrawn by the small entrance-wound, and the operation is completed.

In two cases, M. Velpeau has succeeded in effecting what he has reason to believe will prove a radical cure of the hernia by adopting this practice; but further experience alone can determine whether it will be generally useful.—*Bulletin de Therapeutique.*

Medico-Chirurgical Review, April, 1841, *p.* 522.

MIDWIFERY.

76.—ON THE USE OF THE PERFORATOR AND CROTCHET.

By Fleetwood Churchill, M.D., Lecturer on Midwifery and Physician to the Western Lying-in Hospital.

[We extract the following truly valuable remarks from the "Researches in Operative Midwifery" now being published in the Dublin Journal of Medical Science. They form a series of aphorisms which will always be found useful to be known at the bed-side.]

It may be asked, when the responsibility is so serious, what evidence will be sufficient to satisfy a conscientious practitioner that he may not be committing a crime in his anxious endeavours to afford relief? To this it may be answered:

1. That the continuance of strong labour pains for a certain time, without any advance of the head of the child, is so far evidence of a fixed obstacle to the passage of the child.

2. The failure of a cautious attempt to introduce the forceps will, to a certain extent, demonstrate the amount of the disproportion between the head and the pelvis; and the failure of a careful, yet firm attempt at extraction by the forceps, (when the application has been affected,) will prove that the disproportion cannot be remedied by compression.

3. A well educated finger will enable us in most cases to ascertain whether the diameter of the pelvis are such as will allow of the passage of a living child. And even though this mode be uncertain, we have a means of correcting our estimate, by comparison with the child's head in apposition with the pelvis. If the natural efforts after several hours, or the forceps with a proper and safe amount of compression and force, cannot bring the widest part of the head of the child through the narrow part of the pelvis, we may fairly conclude that the only resource is craniotomy.

4. The general condition of the mother will also aid our decision. If she be much exhausted, if fever be present, the uterus powerless, the life of the child doubtful, and the success of the forceps dubious, we may shrink from inflicting the double shock of an unsuccessful application of the forceps, and subsequent delivery by the crotchet. But these cases are very rare: they only happen when the patient has been mismanaged, and it requires experience and judgement to decide upon the propriety of terminating them by embryotomy.

The *cases* in which the operation is demanded are:

1. When the child is dead, and the labour tedious. But we must be quite sure that the child *be* dead, before this is made the ground of interference.

2. In distortion of the pelvis, when the antero-posterior diameter of the brim is less than three inches, we have no chance of delivery by the natural

efforts, or by the forceps; so that to save the mother, we must destroy the child.

3. When the transverse diameter of the lower outlet is diminished to the same extent by the approximation of the tubera ischii, if the forceps, applied antero-posteriorly, are insufficient to move the head, we must have recourse to craniotomy.

4. When the calibre of the pelvis is diminished to a certain degree by a fixed obstacle—as, for example, a fibrous tumour, or an exostosis growing from the bone or periosteum, it may not be possible for the natural efforts alone, or aided by the forceps, to expel the child. In such a case it will be necessary to lessen the head, and apply the crotchet.

In these three latter classes of cases, the passage through the pelvis may be so much diminished as to render it necessary to break up the skull, or to eviscerate the child.

5. In some cases of ovarian disease, where the tumour has formed adhesion within the pelvis, so as to prevent its being pushed above the brim, it has been found necessary to lessen the head before the child could be extracted. We are not, however, to decide upon this measure until the natural powers have had a fair trial, as it sometimes happens, that in the progress of labour, the tumour is so much displaced as to allow of the passage of the child. Further, it will be worth while, before sacrificing the infant, to ascertain whether the contents of the tumour may not be drawn off, by passing a long trocar into it. If a small quantity of fluid escape, it may allow of the application of the forceps, and so enable us to save the child. If, however, the tumour prove to be solid and immoveable, we must, as a "*dernier resort*," have recourse to the perforator and crotchet.

6. When the child is hydrocephalic to such an extent as to prevent its entering or passing through the pelvis, whether distorted or of the natural size, there can be no question as to the propriety of opening the head.

7. In some cases of convulsions, rupture of the uterus, &c., where immediate delivery is necessary, *and where the forceps cannot be applied*, craniotomy must be performed.

8. If an arm descend along with the head, the diameters of which correspond closely to those of the pelvis, (whether the latter be of the usual size or not), it may be necessary to terminate the labour by opening the head.

9. I have already alluded to a class of cases, where, from mismanagement, the patient has been allowed to continue too long without help, and in consequence is greatly exhausted, with fever, quick pulse, delirium, &c. In such cases the patient will die if she be not assisted; and from the unfavourable state in which she is, she cannot bear a prolonged or very painful operation. Now, if there be sufficient space for the forceps, they ought to be preferred, and it would be very wrong to use the perforator; but if this be doubtful, and the probabilities against our succeeding with that instrument, then the consideration of the patient's inability to bear a severe operation may in some cases decide us in favour of embryotomy. These cases, however, are but few, and they must be well marked, to justify our adopting at once such extreme measures.

10. In footling or breech cases, when the head (separated or not from the body) cannot be extracted, we must evacuate its contents.

The next question to be decided, is the *period of labour* at which the operation should be performed.

1. In all cases where the diminution of the pelvic diameters is so great as to render it impossible that a living child can be born naturally or extracted, there can be no hesitation in recommending that the head should be opened at an early period of the labour, say as soon as the os uteri is dilated, or fully dilatable. By this means we shall afford a chance of the completion

of the labour by the natural powers, as there can be no objection to waiting a few hours before extracting the child.

2. When the distortion is less, we cannot be sure as to the result of the natural efforts, and we must wait until it is evident that they are inadequate; then an endeavour should be made to use the forceps, and if this fail, there should be no delay in the performance of embryotomy.

3. These observations will apply equally to the case of morbid growths, ovarian disease, &c., obstructing the passages.

4. In cases of convulsions, ruptured uterus, &c., the time for the operation is determined by circumstances connected with those accidents, and which will be found laid down in works on the subject.

5. In the mismanaged cases to which I have alluded, the condition of the women, which determines the necessity for the operation, will also point out the importance of promptitude. If the case be so bad that we dare not risk a failure with the forceps, it is clear that we cannot afford to delay embryotomy.

After the head is extracted, the body generally follows without much difficulty; but should this not be the case, we must have recourse to evisceration. The scissors must be plunged into the chest and the contents broken up; the crotchet hooked upon the ribs, and traction exerted. The contents of the abdominal cavity may be evacuated in a similar way, and after this we shall generally be able to extricate the child.

Dublin Journal of Medical Science, Jan., 1841, *p.* 429—436.

77.—TREATMENT OF PROCIDENTIA UTERI BY SUTURE OF THE EXTERNAL LABIA.

By Professor E. Geddings.

Dr. Fricks, of Hamburg, appears to have been the first who endeavoured to unite the external libia for the purpose of retaining the prolapsed uterus in its situation. This operation, to which the name of Episiorraphy has been given, appears to be preferable to several of those which have of late been suggested and employed for the relief of that malady. Should this operation fail, it may be repeated, and it possesses this most important advantage, that it can be performed at any period of life, as it does not interfere with menstruation, conception or child-bearing.

Professor Geddings has operated successfully in four cases; and the following is the manner in which the operation was performed:—The patient was placed in the ordinary position for lithotomy, and the prolapsus reduced. One labium was then put on the stretch, by an assistant, and an incision was commenced with a common scalpel, about a finger's breadth from the upper commissure, and the same distance from the edge of the labium. The incision was carried downwards with a bold sweep, and terminated by a slight curve inwards, and at a little distance behind the fourchette. A slip of the labium of a finger's breadth in thickness was thus severed from the external parts, taking care not to cut through the mucous membrane of the vagina. Making traction on this slip, downwards and inwards, the mucous membrane of the lateral portion of the vagina was then dissected up to the extent of an inch and a half, and detached with the excised labium. The same thing was repeated on the opposite side, the incision being so directed as to intersect the first cut at an acute angle, and remove the fourchette with the other parts. After the hæmorrhage, which was generally inconsiderable, had ceased, an oiled sponge was passed into the vagina, and the two raw surfaces brought into apposition by means of the quilled suture of five stitches. The parts were pressed with a compress of soft lint, secured by a

T bandage, and the patient put to bed, with her ankles and knees properly secured together by means of bandages. It was not found necessary to use the catheter, but considerable advantage was derived from keeping the dressings constantly wet with cold water. The introduction of the sponge is for the purpose of preventing the descent of the uterus till adhesion had taken place, and was generally removed about the fifth or sixth day. The sutures were removed in proportion as the parts appeared to be united.

In the four cases operated on by Professor Geddings, no return of the complaint had occurred at the period of the publication of this paper, and they had all returned to their usual avocations.

American Journal of Medical Science, and Edinburgh Medical and Surgical Journal, January, 1841, p. 266.

78.—MODE OF INDUCING PREMATURE LABOUR.

By Dr. Meissner, of Leipsic.

Dr. Meissner never induced premature labour till the thirty-sixth week of pregnancy, and in all the cases the antero-posterior diameter varied from two inches and three quarters to three inches one line. His mode of operating, which is a modification of that by puncture of the membranes, was the following:—A very slender canula is provided of about 13 to 14 inches in length, and bent regularly in the form of a segment of a circle. It has a ring soldered on the convex side of its lower extremity, in order to give a more secure hold, and allow of the point of the instrument being accurately guided. This canula is provided with two trocars, one with a blunt point and the other with a sharp-cutting point. When the instrument is to be used, the blunt pointed trocar is introduced to the canula, and projects beyond its orifice so far as to prevent the edge of the tube injuring the parts. The patient then stands before the practitioner, who kneels before her, the usual manner in which vaginal examinations are made on the continent, or she may sit on the very edge of a chair, or of the bed. The forefinger of the left hand is then introduced into the vagina, and the canula guided along it to the orifice of the uterus, making the convexity of the instrument correspond to the curve of the sacrum. The point of the instrument is then pushed slowly backwards and upwards, so as to make its rounded point slide between the uterus and the back of the membranes. When the point is once past the neck of the uterus, it advances easily, care only must be taken to detach the membranes as little as possible. When the point of the instrument is about 10 or 11 inches within the *os uteri*, the blunt-pointed trocar is withdrawn, and the handle of the instrument is pressed against the perinæum, to detect, if possible, against what the point of the canula is pressing. If it be felt to be a hard body, the point is made to move to one side or other till an elastic fluctuating spot be reached, which shows it is opposite the membranes alone; the sharp-pointed trochar is then introduced and perforation of the membranes is made. The trocar is then withdrawn, and about a table-spoonful of the *liquor amnii* is allowed to escape; after this the canula also is removed, and the woman is allowed to walk, sit, or lie down at her own pleasure. The amniotic waters after this, slowly and drop by drop, escape, and appear to prepare the parts for delivery, so that after 24 hours the hand may easily be introduced into the vagina. Labour-pains usually come on from 24 to 48 hours after the puncture of the membranes; in several of the cases, delivery was completed 36 hours after the puncture.

* *Edinburgh Medical and Surgical Journal, April, 1841, p. 557*

* See also Medical Chirurgical Review, April, 1841, p. 525.

79.—NUX VOMICA, IN THE VOMITING OF PREGNANT WOMEN.

By Dr. Kroyher.

Dr. Kroyher, of Presburg, assures us that minute doses of the nux vomica, given in some aromatic or in cherry-laurel water, are a *specific* remedy against the troublesome vomiting to which many women are subject during the early months of pregnancy. In order to insure success, the bowels must be kept in a gently open condition, but neither purged nor constipated. The author says, that the effects of this remedy are certain, provided the vomiting is the result of pregnancy alone, and is not dependent on any morbid state, either of the stomach or of any other organ. The dose recommended is from two to four drops of the tincture—the strength of this is not stated—to be gradually increased to ten, twelve, or eighteen drops every morning in bed, and again in the evening. In many cases it proves quite successful within a week or even a shorter time; in other cases its use must be continued longer.

Medico-Chirurgical Review, Jan., 1841, *p.* 231.

80.—ON SANGUINEOUS TUMOURS OF THE SCALP IN NEW-BORN CHILDREN.

By Francis Black, M.D., &c.

Sanguineous tumours may be classed under three different heads; first, those in which the blood is effused under the integuments exterior to the pericranium; the second, that which is found between the pericranium and the bone; and the third species situated deeper than either of the preceding two, between the *dura mater* and bone. These tumours are not confined to the head, but are sometimes met with on the face, breech, and shoulders, or on any other region which has suffered pressure in the pelvis during labour. But the head is their principal seat. We generally find them on the right parietal bone, seldom more than one, but in some instances two or three, either isolated or communicating with each other. The fluid which these tumours contain possesses more or less of the characters of blood; sometimes coagulated, in other cases fluid, and of a florid or venous colour, and occasionally so thin that it seems to be simply the serum of the blood mixed with the colouring matter. In cases of long standing there has been found an admixture of purulent matter.

The first class may be divided into two varieties, first, where the effusion is supra-aponeurotic; second, where it is sub-aponeurotic.

Supra-aponeurotic.—It differs from the other varieties in this respect, that it is not confined to one part of the cranium; that it very soon disappears; and is generally the consequence of pressure during delivery.

Sub-aponeurotic.—The second variety, where the extravasation is between the aponeurosis of the *occipito-frontalis* and the pericranium, differs in many points from the last mentioned.

The treatment here ought to be a little more active than in the first variety: but the blood is generally absorbed of itself. If, however, after eight, or ten days, we see no diminution, lotions of muriate of ammonia, made more or less stimulating by alcohol, should be applied. This may be combined with pressure. Before using these we may puncture with a cataract needle, so as to draw off the contents.

What we dread in an obstinate case is, that suppuration may be induced, or that, from the continued irritation of the contents, the pericranium be separated from the bone. It is remarkable that these tumours cause so little uneasiness.

Second Class. Cephalæmatoma.—Almost each author who has turned his attention to this tumour has employed a new name. Thus it has been styled *Ecchymoma capitis* by Feller and Carus; Plenk added the addditonal epithet of *cariosum*; Golis calls it *Thrombus neonatorum*; and Palletta *Abscessus sanguineus capitis.* I shall employ the term Cephalæmatoma introduced by Zeller, and now in general use.

In this species the blood is extravasated between the bone and the pericranium. Formerly authors were not aware of the seat of it, hence the contradictory statements which they gave; some stating that it was always fatal, others that it was of little consequence and soon disappeared.

This variety is peculiarly distinguished by having a particular hard edge or ring round its base; it is much more prominent and more circumscribed than those mentioned before; and the skin is not discoloured.

Causes.—Pressure on the child's head during its passage through the pelvis has been generally assigned as the cause of all these tumours. But, though this is the fact in the case of the subcutaneous or *caput succedaneum*, it cannot, from many circumstances, I think, ever be the cause of the true cephalæmatome.

Various theories have been brought forward, such as an abnormal condition of the blood-vessels, ulceration, *nævus maternus*, &c.; but as these are not supported by facts, we need not dwell on them. The most plausible yet proposed is that suggested by Dubois, and confirmed by Valleix. In order to follow fully their reasoning, it will be necessary for a moment to advert to the anatomy of the parietal bone.

The ossification of the parietal bone commences from one point in its centre, from which bony radii are seen shooting in all directions. At birth, all the portions beneath the parietal prominence is found completely ossified, and showing no radiated appearance; but above the prominence we find that ossification is not complete, and that the radiated appearance is most distinct. On examining the external surface of the dried bone, there are seen a number of fissures between the radii; a few of which immediately above the prominence are also open on the internal surface. In the fresh state, this bone is exceedingly vascular, and on removing the pericranium, which is done with great facility, in proportion as the bone is vascular, we see an immense number of minute vessels running in these fissures. On applying pressure round the circumference of the bone, the radii are removed one from the other, and the vessels are torn, the consequence of which is ecchymosis.

Valleix's theory, then, is that the pressure of the child's head against the mouth of the uterus causes *cephæmatoma.* This is strengthened by the fact of its not appearing in the case of twins, when the mouth would be dilated on the passage of the second child.

This theory is, to all appearance, the one which bears the semblance of truth, and, therefore, worthy of our belief, at least, until another more plausible can be given.

There are two different opinions with regard to the manner in which they terminate favourably. These depend upon the fact, whether the bone or the periosteum secretes osseous matter.

The following are the views of Naegele with regard to the manner of cure. First, the detached pericranium ossifies on its interior surface. Secondly, in proportion as the extravasated blood is absorbed, the ossified pericranium approaches the bone, and finally unites perfectly with it. Thirdly, after six months, or even a year, an eminence is remarked on the spot where the tumour was seated. Fourthly, in children who have died at the end of six months or one year, M. Naegele has found by dissection that the parietal bone was much thicker at the seat of the tumour than at any other point of its extent.

Valleix gives a different view. He says, "I have seen two cephalæmato-

mata terminate without operation, and the following are the results. They existed on the same infant, and, though very small, the osseous circle was very considerable. Every day this circle made new progress from the centre to the circumference, so that daily the fluctuating part of the tumour diminished. At last only a small excavated point, containing fluid, was to be felt at the top of the osseous protuberance; but this point never offered either the hardness or the crackling noise of parchment mentioned by some authors." In a word, the ossification extended from the sides to the middle, and from below upwards, that is to say, it took its origin from the bone.

Which of these statements are correct? I would say both are equally so.

It is quite clear from numerous experiments that the periosteum does throw out osseous matter.

It being seen that the pericranium does throw out ossific matter, and finding by dissections that the bone forming the base of these tumours is also covered by rough bony granulations, we must conclude that the ossific matter is secreted both by the pericranium and by the bone; that these unite and form the callus, which remains often for six months or even a year after the fluid contents have been absorbed.

Treatment.—Discutient applications, combined with slight pressure, are decidedly the best applications, especially if the tumour is small; but whenever it threatens to inflame, it ought to be opened without delay. The incision should be small, and kept open for a day or two by the introduction of a small piece of lint. Zeller gives three cases showing the comparative efficacy of discutient applications with incisions. A female child, which was born with ease, had on both parietal bones a sanguineous tumour, almost equal in size. That on the left was opened, and at the end of eight days was cured. The other disappeared in five weeks under the use of discutient lotions. In another case of a male child, where the tumour was larger, and covered the superior and anterior quarter of the right parietal, it disappeared after incision in less time than the former case, and in a still shorter period in a third case. Incision, or rather puncture may be employed in cases where the tumour is very large, and where the parents of the child become anxious for its disappearance.

Third Class. Subcranial.—In this variety the blood is extravasated between the *dura mater* and the cranium; an accident which Velpeau says is by no means uncommon during delivery. This, which by some is called internal cephalæmatoma, is not confined to the parietal bone, but is met most frequently in the occipital region. Baron states that, in the few cases which he has met with of internal cephalæmatoma, he has always found an external one. In the first stage of this tumour, there are sometimes constitutional symptoms, such as twitchings of the limbs, stupor, &c.; but more often the disease proceeds insidiously, either producing inflammation of the membranes, or destruction of the bones, and only then is constitutional disturbance produced. Hence, when there is no external appearances, the diagnosis is almost impossible.

Treatment.—I can say little on the treatment of this variety, as I have been unable to procure any cases in which remedial measures have been used. But, considering the severity of the lesion, and the delicate age of the patient, we cannot expect that art can be of any avail, either in evacuating or causing absorption of the contents.

Edinburgh Medical and Surgical Journal, Jan., 1841, *p.* 112—125.

ANATOMY, PHYSIOLOGY, AND PATHOLOGY.

81.—ON THE ANATOMICAL RELATIONS OF THE BLOOD VESSELS OF THE MOTHER TO THOSE OF THE FŒTUS.

By Dr. JOHN REID, Lecturer on the Institutes of Medicine, &c.

[In article 67 of our second number will be found an abstract of an interesting paper by Dr. Knox, on this subject. We believe it was the preparation here referred to by Dr. Reid, which first induced Dr. Knox to communicate his paper to the Medical Gazette in October last, and that in fact the priority of the discovery belongs to Dr. Reid. It seems that Flourens is the only modern author of note who insists on a direct communication between the vessels of the mother and the fœtus. The Monros, the Hunters, and Wrisberg, satisfactorily proved the error of this opinion, and proved that there is no vascular continuity between the vessels of the mother and placenta. The Hunters shewed "That numerous small curling arteries, the largest being about the size of a crow-quill, passed from the inner surface of the uterus, that they penetrated the decidua and opened into the interstices between the fœtal blood vessels of the placenta."]

I was, therefore, concluded that the blood of the mother was poured by curling arteries into a kind of cellular tissue, filling up the intervals between the ramifications of the fœtal placental vessels, from which it returns to the uterine sinuses of the mother through their placental prolongations, after having acted upon the blood of the fœtus through the thin walls of the umbilical placental vessels.

[Although this view has been strenuously opposed by several eminent men, as Lauth, Lee, Velpeau, Radford, Ramsbottom, &c., it has been supported and confirmed by the late observations of Weber, published in Hildebrandts Handbuch der Anatomie des Menchen, 1832, and by Dr. Hugh Ley, Mr. Owen, &c. Dr. John Reid proceeds as follows to give an account of his interesting observations on the impregnated uterus, which he had the opportunity of examining.]

On separating the adhering surface of the uterus, slowly and cautiously, under water, I satisfied myself, but not without considerable difficulty, of the existence of the utero-placental vessels described by the Hunters. After a portion of the placenta had been detached in this manner, my attention was attracted towards a number of rounded bands passing between the uterine surface of the placenta, and the inner surface of the uterus. These bands were generally observed to become elongated, thinner, and of a cellular appearance when put upon the stretch, and were easily torn across; while at other times, though much more rarely, they could be drawn out in the form

of tufts from the mouths of the uterine sinuses. On slitting up some of the uterine sinuses with the scissors, these tufts could be seen ramifying in their interior, and were more or less elongated; many of them appearing only to dip into the open mouths of the sinuses, while others proceeded from a quarter of an inch to an inch from the open mouths of the sinuses by which they had entered, and in some cases they extended themselves into one of the neighbouring sinuses. The next point was to endeavour to ascertain the nature of these tufts by injection and microscopic examination. A size injection was thrown into the umbilical vein, and though it ran imperfectly from the injury done to the detached portions of the placenta while tracing the course of the utero-placental vessels, yet several branches of the tufts contained in the uterine sinuses were filled with injection, and their continuity with the umbilical placental vessels was clearly ascertained. On placing portions of these tufts under the microscope, along with portions of the umbilical vessels taken from different parts in the interior of the placenta, their identity was at once apparent. Having thus determined that these tufts observed in the uterine sinuses of the mother were prolongations of the fœtal placental vessels, I then proceeded to examine their anatomical relations to these sinuses. These tufts were found to protrude into the open mouths of certain of the uterine sinuses only, and it need scarcely be added that they were observed only in those sinuses placed next the inner surface of the uterus, and not in any of the deeper sinuses. These tufts were surrounded externally by a soft tube similar to the soft wall of the utero-placental vessels, which passed between the margin of the open mouths of the uterine sinuses, and the edges of the orifices in the decidua through which the tufts protruded themselves into the sinuses. The size of these tufts varied considerably. Some of them appeared to fill up completely the open mouths of the sinuses by which they entered; while others filled them only partially. On examining these tufts as they lay in the sinuses, it was evident, that, though they were so far loose and could be floated about; yet they were bound down firmly at various points by reflections of the inner coat of the venous system of the mother upon their outer surface. This reflection of the inner coat of the uterine sinuses upon the tufts was sometimes observed at the point where these entered the open mouths of the sinuses; at other times it was at or near their apices, and was in general so strong that the tufts were torn across in attempting to detach them by pulling. In this uterus we thus ascertained that while some of the utero-placental veins contained no prolongations of the fœtal placental vessels, in others these passed along their interior and projected into the uterine sinuses. On tracing those utero-placental veins, which contained no fœtal vessels, as far as the placental surface of the decidua, the inner coat of the venous system was seen to be prolonged upon some of the tufts of fœtal placental vessels in their immediate neighbourhood. On tracing one of the larger of the curling arteries through the decidua, it was also observed, that when it reached the placental surface of that membrane, the interior coat of the arterial system of the mother was prolonged upon some of tufts of the fœtal placental vessels, which projected into their orifices. Those numerous branches of the fœtal placental vessels, which reach the placental surface of the decidua and do not pass into the uterine sinuses, nor into the orifice of the utero-placental vessels, are attached by their apices to the placental surface of that membrane.

On placing some of the filaments, composing those tufts of fœtal placental vessels found in some of the uterine sinuses of the mother under the microscope, they were observed to divide and subdivide into branches more or less elongated, all of which terminated in blunt extremities.

There is no cellular nor any other tissue filling up the intervals left between the branchess of the fœtal placental vessels; and the difficulty experienced in unravelling them does not arise from the presence of any connecting me-

dium, but from the crossing and recrossing of the branches of different tufts, and those of the same tuft with each other. The outer surface of the placental vessels has a smooth appearance, and they are, *we may suppose*, every where enveloped in the inner coat of the vascular system of the mother, which, as we have seen above, is reflected upon them.

As the blood-vessels forming the placenta, and also those prolonged from it into the uterine sinuses, divide and subdivide into numerous branches, which do not anastomose with each other, but all terminate in blunt extremities, we might on theoretical grounds, as well as from the descriptions given by others, decide that in each of these branches an artery and a vein are bound up together. This conclusion was fully confirmed by the microscopic examination of some of the injected branches of the tufts of the placenta which passed into the uterine sinuses, and also of three other placentæ, in which the arteries were filled with differently coloured size injection. I was satisfied that each of the smaller branches of the placental arteries is bound up with another branch of one of the placental veins, which closely accompanies it, forming what appears a single vessel when viewed through the microscope. Each branch of the umbilical artery is thus closely bound up with a branch of the umbilical veins, and both of them divide and subdivide exactly in the same manner, and terminate in what appears to be blunt extremities, but which actually form the termination of the arteries, and the commencement of the veins. The interior of the placenta is thus composed of numerous trunks and branches, (each including an artery and an accompanying vein,) every one of which, we believe, is closely ensheathed in prolongations of the inner coat of the vascular system of the mother, *or at least in a membrane continuous with it*. If we adopt this view of the structure of the placenta, the inner coat of the vascular system of the mother is prolonged over each individual tuft, so that when the blood of the mother flows into the placenta through the curling arteries of the uterus, it passes into a large sac formed by the inner coat of the vascular system of the mother, which is intersected in many thousands of different directions, by the placental tufts projecting into it like fringes, and pushing its thin wall before them in the form of sheaths, which closely envelope both the trunk and each individual branch composing these tufts. From this sac the maternal blood is returned by the utero-placental veins without having been extravasated, or without having left her own system of vessels. Into this sac in the placenta containing the blood of the mother the tufts of the placenta hang like the bronchial vessels of certain aquatic animals, to which they have a marked analogy. This sac is protected and strengthened on the fœtal surface of the placenta by the chorion; on the uterine surface of the *decidua vera*, and on the edges or margin by the *decidua reflexa*. The blood of the mother contained in this placental sac, and the blood of the fœtus contained in the umbilical vessels, can readily act and react upon each other through the spongy and cellular walls of the placental vessels, and the thin sac ensheathing them, in the same manner as the blood in the bronchial vessels of aquatic animals is acted upon by the water in which they float. According to this view of the structure of the placenta, the fœtal and maternal portions of the placenta are everywhere intimately intermixed, and we find tufts of minute placental vessels with their blunt terminations, lying immediately under the chorion covering its fœtal surface, as well as towards its uterine surface. When the fissures dividing the placenta into lobes are so deep as to intersect the whole thickness of the placenta, we may have two or more of these sacs instead of one. The discovery of the prolongations of the fœtal placental vessels into some of the uterine sinuses is principally valuable, as it presents us with a kind of miniature representation of the whole structure of the placenta, and enables us to comprehend it readily, for we have there the fœtal blood-vessels, resembling bronchial vessels, ensheathed in the inner coat of the vascu

lar system of the mother, and bathed in the maternal blood. The placenta is therefore not analogous in its structure to the lungs, but to the bronchial apparatus of certain aquatic animals.

Edinburgh Medical and Surgical Journal, January, 1841, *p.* 1—12.

82.—ON SCROFULOUS TUBERCLE OF THE BRAIN.

By Dr. Hennis Green, Lecturer on the Diseases of Children, at the Hunterian School of Medicine, &c.

[The existence of this disease has been greatly neglected by medical practitioners, and we owe much to Dr. Green for pointing it out to us so clearly in his journal. He says that he has examined every medical work on the subject, and is "not acquainted with one in which cerebral tubercle is mentioned." His first case is related as follows:]

Alexander Legros, 3¼ years of age, was admitted into the Children's Hospital on the first of July, 1835, whither he was brought by the nurse under whose care he has been since the age of three months. The mother of the child is consumptive. For the last month he complained of pain in the abdomen, for which a medical man ordered baths and twelve leeches to the abdomen; he took some medicine (supposed to be vermifuge,) and vomited it up; on the following morning he had some convulsive attacks, (the first lasted ten minutes,) during which the face was very pale, and the eyes fixed, and the arms contorted: he vomited again, without having taken medicine, in a few days, and the vomiting has recurred since then several times. The child was frequently stupid; no delirium or pain in the head; no squinting observed; no diarrhœa. For the last eight days the boy has had pains in the back of the head, and since then squinted; he also evinced an unwillingness to move about; makes urine frequently. He remained in the Hospital until the 10th, with no symptoms worthy of notice, except squinting and a slight movement of the lower jaw, and was removed by his friends.

On the 16th of July he was again brought to the hospital, with a slight eruption of small-pox, in the first stage. We now learn that on the 14th and 15th the child vomited (he also vomited this morning,) and complained very much whenever the limbs were touched; he had a strong convulsion this morning, and several similar attacks since Wednesday last.

Present state.—The boy now lies quietly on his back; the face full, pale, and cool, but the forehead excessively hot; general surface moderately warm; there is some convulsive strabismus of the right eye, the eyelid of which is more closed than the left one; tongue clean and moist; and the lateral movements of the lower jaw are more marked than they were before, and he occasionally catches the bed-clothes between his fingers; answers clearly when spoken to; extremities neither stiff nor contracted; when the integuments of the hands or arms are touched he evinces the most acute sensibility; no pain in the abdomen; pulse small, 128; respiration free, at one time 28, at another 36; short, dry cough.

17. The general appearance is the same as yesterday; had no regular convulsive fit, but much agitation and delirium last night; the squinting and movements of the jaw continue, with jactitation of the hands; the right eyelid nearly closed; pulse small, 130; respiration 34; skin very warm; abdomen contracted, and free from pain; tongue red, and covered with a number of white pips, like aborted pustules; the face and extremities are covered with small papulæ, most of which are flat and irregular, like those of measles; a few only are prominent.

Evening. Pulse 144; no motion of lips or jaw; thirst; deglutition perfect; some areola round the pustules on the body; on thighs they are very

confluent; the child has been seized with a peculiar trembling of the upper extremities.

19. Child appears to be dying. He lies on his back, with both hands elevated to the ears, and trembling violently; face pale, covered with a number of flat and pale papulæ; no convulsive motion of muscles of eyes or face; pupils natural; skin of forehead still excessively warm; pulse small and rapid, 140; respiration 46; lips and tongue dry and dirty; low muttering delirium; the pustules on the body are assuming a bluish aspect. Died in the evening at eight o'clock.

Body Examined fifteen hours after Death.

Head: The superior surface of the brain is pale, and the membranes not injected; on the left hemisphere, along the course of a large vein, there is a sero-sanguineous effusion, about two inches in length; in the right hemisphere, about two and a half inches from the frontal bone, and a quarter of an inch from the median line, there is a large solid tubercle embedded between the convolutions, with two or three small tubercles in the adjoining pia mater. The membranes and surrounding nervous substance are not altered; on the side of the left hemisphere, near the falx, there is a flat mass of tubercular matter, a quarter of an inch in diameter, partially embedded in the substance of the brain: the pia mater lying over it is not injected, but it is surrounded by a deep red circle of injection, about two lines in breadth, with slight softening of the nervous tissue.

The lateral ventricles are considerably dilated, and contain five ounces of clear serum; inferior surface of brain healthy. On attempting to remove the cerebellum, a large portion of the right lobe was found to be closely adherent to the dura mater; here there existed a large flattened tubercle, one and a half inches by half an inch, adhering by one surface to the dura mater, and by the other imbedded in the nervous tissue; the latter being softened around it, and of a light yellowish colour, sprinkled with points of red. The rest of the nervous system healthy.

Chest: The left lung adheres along its whole surface to the chest, pericardium, and diaphragm, by cellular tissue of a deep red colour, and moderate consistence; cavity of pleura contains about half an ounce of clear serum; numerous tubercles in both lungs; one very large one in the bronchial glands. Œsophagus healthy. The membrane lining the upper part of the larynx is of a dark purple colour, and is covered with small round white spots, apparently false membrane.

Abdomen: Extensive tubercular deposits in the messenteric glands; in the centre of the right kidney a small crude tubercle, of the size of a marble, without any change of the surrounding tissue.

[In the second case related, the morbid appearances after death were as follows:]

The membranes on the upper surface of the brain are free from inflammation, but there is a slight infiltration of serum in the pia mater. The cerebral substance healthy, although rather soft; about a spoonful of clear serum in the lateral ventricles; the parieties of the ventricles not softened, but the fornix seems to be a little less firm than in the healthy state. In the centre of the pons Varolii, extending to the left side, there is a round crude tubercle nearly as large as a walnut; the surface of this tubercle is irregular, and the surrounding nervous substance is softened to the depth of about a line. There is a second tubercle, of the same size as the former, in the left crus cerebelli; this one is enclosed in an evident cyst; here the surrounding tissue is also soft. There are no marks of chronic inflammation or traces of miliary tubercles in any part of the cerebral membranes.

Provincial Medical and Surgical Journal, Dec. 12, 1840, p. 192.

83.—ON THE INFLUENCE OF ARTIFICIAL LIGHT IN CAUSING IMPAIRMENT OF VISION.

By James Hunter, M.D., Surgeon to the Eye dispensary, Edinburgh.

Mr. Hunter explains with much ingenuity as well as scientific knowledge, a cause of impaired vision very extensive in operation, and which, from the very general use of gas light, is likely to become still more so.

Common day-light which is the only natural light, and the least injurious to the eyes, consists of red, yellow, and blue rays in the ratio of five, three, and eight; there is a predominance of blue rays, which form the mildest and least hurtful to the retina. In the ordinary forms of artificial light, as the light from candles, either of tallow or wax, oil or coal gas, this proportion is reversed, the yellow and the red rays being in excess, and the blue rays in the ratio of minority. From this peculiarity in artificial light in the excess of red and yellow rays, various inconveniences and evils result.

1. Colours and coloured objects appear in it differently from what they do by day-light. 2. The retina is unequally, we would say too strongly excited, and becomes less sensible to those rays that are in excess, so that afterwards, when it views a white object by day-light, the blue rays contained in the white light reflected from its surface, make a greater impression than the red or yellow rays, and the objects assume more or less of a dingy blue or purple colour. This over-excitement of the retina produces films, *muscæ volitantes*, and even amaurosis. 3. The red and yellow rays possess considerable higher heating powers than the blue rays, and, therefore, artificial light, which contains these calorific rays in larger proportion, must be injurious to the retina in this manner. 4. From artificial light furnishing less defining power, it is requisite to use it in considerable quantity; and this is another source of over excitement to the retina. 5. While, in the case of natural or day-light, the ordinary calorific or heating powers of the red and yellow rays are, by various circumstances and beautiful provisions in its transmission through the atmosphere, almost annihilated, so that these rays arrive at the eye with much less of their heating powers than they would have, if direct, the rays of artificial light, by coming more directly and in a more concentrated form on the eye, are accompanied with their concomitant heat, and thereby injure the retina greatly by this hurtful adjunct. 6. The carbonic acid gas which is extricated from all artificial lights, procured, as they are, by combustion, though not acting on the eye itself, acts on the brain, and especially the optic nerves, the sensibility of which it weakens and ultimately destroys. 7. All artificial lights are unsteady and irregular, and very often placed in improper positions.

Of all artificial lights, gas light is the most hurtful, not from anything peculiarly noxious in its qualities, but from its cheapness, which leads to its being used in excess, and consequently, in such quantity as to over-stimulate the eyes.

To obviate these several evils, Dr. Hunter recommends the more sparing use of gas-light, and other artificial lights, and the employment of means calculated either to add blue rays when deficient, or to withdraw the red and yellow rays when in excess.

This object is to be attained by the use of conical reflectors of a blueish or azure colour, and chimneys stained of a blue colour. Pale blue glasses are also recommended; but Dr. Hunter thinks their use is not advisable, as they become hot and require, from the loss of light they cause, to be often removed.

Edinburgh Medical and Surgical Journal, Jan., 1841, *p.* 241.

84.—NEW THEORY OF THE SOUNDS OF RESPIRATION.

By M. Beau.

The object of the present communication is to support with new facts the theory which I proposed in 1834, (Archives Generales) as to the cause of the respiratory sounds, and to shew the various applications of which it is susceptible, by passing in review all the normal and abnormal sounds produced in the larynx, the bronchi, and the lungs. This theory rested on the following two propositions:

1. There is produced in the superior respiratory passages a sound or murmur which resounds in the pulmonary vesicles, the trachea, the bronchi, the caverns, and which, in consequence of this resonance, is the only cause of the different sounds, known under the names of the *vesicular*, the *tracheal*, the *bronchial*, the *cavernous*.

2. Every sound produced in the superior respiratory passages must resound in the bronchial tree with its proper character and its own degree of intensity.

These two propositions were deduced from clinical observations and from several experiments, of which the following are the chief:

1. When the superior sound is suspended—and this may easily be done by instinctively dilating the superior respiratory passages—the vesicular, tracheal, bronchial, and cavernous sounds can no longer be heard. The breathing, although now very tranquil and silent, goes on as usual; but if we did not feel under the ear the thoracic parietes alternately rise and fall, we might suppose that the person did not breathe.

2. If we suspend the superior sound during one only of the respiratory movements, then the vesicular, tracheal, bronchial, and cavernous sounds are found to be suspended during that movement, while it is still audible during the other.

3. If we produce a whistling sound during either respiration or expiration, the same kind of sound is heard in the bronchial tree.

Medico-Chirurgical Review, January, 1841, *p.* 206.

[Dr. Corrigan, of Dublin, offers a substantial objection to this theory of Beau's, as will be seen by the following extract from one of his clinical lectures.]

The healthy respiratory vesicular respiration is *only* heard during *inspiration*, or the sound during expiration is so very feeble that it may be considered as absent. Whenever a sound is heard, during expiration, of even very moderate degree of loudness, unless at the root of the lung, or very close to the trachea, there is always disease. Had Beau paid attention to this fact, he would not, I think, have originated his theory, that the respiratory murmur heard through the chest is the sound, not of the current of air passing into the air-vesicles, but is merely the propagation of the sound generated by the passage of the air along the nasal passage pharynx and trachea. Were his opinion correct, the respiratory murmur should, throughout the chest, present the same character which belongs to it in those passages, of being heard equally loud in inspiration and expiration; but as it differs in the remarkable character of being audible only during inspiration, this difference of character is, I think, a conclusive objection against Beau's theory.

Medical Gazette, March 12, 1841, *p.* 906.

85.—ON CORPORA LUTEA.

By Robert Paterson, M.D., Physician to the Leith Dispensary.

[Dr. Paterson has written two interesting papers on this subject, one in the Edinburgh Medical and Surgical Journal, for January, 1840, and another in the same Journal for October, 1840.]

In the first part, Dr. Paterson discusses the appearances presented by the true corpus luteum in its early stages, its anatomical position, with the time and mode of its disappearance, as well as the different kinds of false corpora lutea. He has shewn that a central cavity does not always exist in the very early corpus luteum, as is generally believed, but that there is often a fibrinous coagulum filling up this cavity, and that the distinguishing marks of an early corpus luteum are, the presence of the plicated structure of its proper substance, and a central cavity, or fibrinous coagulum. The substance of the corpus luteum is effused between the membranes of the Graafian vesicle; and it appears that Dr. Lee has mistaken an effusion of coagulable lymph in the interior of the cavity of the corpus luteum for the membranes of the Graafian vesicle. The corpus luteum is not always of a yellow colour, but occasionally assumes a pinkish or red tinge independent of any inflammation or abnormal congestion in the uterine appendages. The precise period of the disappearance of the corpus luteum is not stated, but three or four months after delivery is considered by Dr. Paterson to be the time at which this appearance in the ovary ceases to be observable. As the formation of the corpus luteum consists in an effusion of lymph between the layers of the Graafian vesicle, so does the manner in which it disappears depend upon the reabsorption of this lymph; consequently the appearances in the ovary are different when a central cavity has existed to the last, for instead of a white central cicatrix, a puckered cyst (from the approximation of the two membranes of the Graafian vesicle) is left, and which is very liable to be mistaken for other cysts frequently found in the ovary.

Dr. Paterson has shewn, that false corpora lutea are frequently connected with menstruation, and has given several cases in illustration. He comes to the following conclusions:

"False corpora lutea in the human female, arise,

"1. From the bursting and subsequent filling of a vesicle with blood, as in menstruation.

"2. From partial effusion of blood into a vesicle either with or without rupture of it.

"3. By reabsorption of the fluid of a morbidly enlarged Graafian vesicle, giving rise to a puckered cyst.

"4. From effusion of blood into the tissue of the ovary—the apoplexy of that organ.

"5. Tubercular deposits.

"6. Cysts filled with yellow fatty matter.

"These are to be distinguished from the true corpus luteum by the following marks:

"They in general have an irregular form. They want the central cavity lined with a distinct membrane, or the central puckered cicatrix.

"They have no concentric radii.

"They are frequently numerous in both ovaries." (Abridged from *Edin. Med. and Surg. Journal, No.* 142, *January* 1840.)

Dr. Paterson devotes the second part of his communication to the consideration of the corpus luteum in the more common of the domestic animals.

Dr. Paterson states, "that it was his intention now to have considered the question of the possibility of a true corpus luteum ever occurring without impregnation. But it will be obvious to every one, that it is necessary to re-

sort to experiments on the lower animals, for assistance in the solution of this question, as no single individual, however extended his experience or opportunities, can be expected to accumulate sufficient evidence from the human female alone.

The size of the copora lutea of the lower animals, is greater in comparison to the size of the ovary, than that of the human female; their appearance through the membranes of the ovary, is more striking; and they have the nipple-like prominence much better marked.

The true corpus luteum of the cow is of a bright orange yellow colour, and its bisection on an average measures eleven and a half lines in its greatest, and about ten lines in its smallest diameter. In the ewe, the corpus luteum has generally a dull fleshy-red colour, and remains a long time of considerable size in the ovary. Generally one or two are found. In the sow the cor pus luteum has much the same colour as that of the ewe, but is of somewhat larger size. They vary from three to fourteen.

The corpus luteum of the bitch has a pinkish yellow colour, and its size may be compared to that of an ordinary sized pea.

The cat and rabbit are the only other animals, the corpora lutea of which are described. It would appear that the colour of both is very similar, viz., a dingy yellow; but those of the cat are rather the largest.

In describing the origin of false corpora lutea in the lower animals, Dr. Paterson takes an opportunity of reminding us of the great similarity between the season of heat in the lower animals, and menstruation in the human female; and as false corpora lutea have been shown to arise during menstruation in the human female, they are also described to occur during the period of heat in the lower animals.

During the period of menstruation in the human female, and heat in the lower animals, it would appear that similar changes take place in the ovaries, that there are prominent vesicles, that these are ruptured, that their cavities become filled with blood, and that after a time this blood changes its colour and gives rise to the appearance of false corpora lutea. While this is one of the most common origins of the false corpus luteum in the lower animals, another very frequent one is the effusion of blood into the tissue of the ovary, forming the ovarian apoplexy. We have found small coagula of blood at al most every part of the ovary, and under all circumstances, unconnected with heat or conception, and even when the animal has been several months pregnant. These clots of bood soon change their hue, and become either yellow and firm, or melanotic throughout, or yellow and black in the centre. In the cow they not unfrequently assume a brick-red colour, with small dark or black points through them. I have also not unfrequently found cysts filled with a yellow caseous matter. These are occasionally found as large as true corpora lutea, but are easily distinguished by their consistence and structure, as well as by their general appearance. In all instances, too, they can be turned out of their cyst with the greatest ease, which cannot be done with a true corpus luteum.

False corpora lutea in the lower animals have; *first*, an irregular form; *second*, no distinct central cavity lined with a membrane, or a central puckering; *third*, no concentric radii, nor lobular divisions; *fourth*, they can frequently be turned out of a distinct cyst, when the body will be found to be of a caseous consistence and appearance; *fifth*, they have not the same colour as the true corpora lutea. (Abridged from the *Edinburgh Medical and Surgical Journal*, No. 145, *October*, 1840.)

Edinburgh Monthly Journal of Medical Science, Jan., 1841, *p.* 43.

86.—ON VESSELS IN GRANULATIONS.

By Robert Liston Esq., Surgeon to the North London Hospital, &c.

The admirable papers on Diseases of the Joints, by our distinguished President, and also by Messrs. Mayo and Key, read before this Society, and published in their transactions, leave, it may well be supposed, very little further to be said on the subject.

Having, however, succeeded in injecting minutely, some limbs removed on account of articular disease, I venture to present a few observations, the result of an attentive examination of parts of them under the microscope.

A question, it is well known, has been agitated, as to whether articular cartilage is extravascular or not; Cruveilhier, Velpeau, and Key, espousing the former doctrine, and maintaining that it is a mere epidemic crust, endowed with no organic life, and hence unsusceptible of disease.

Sir B. Brodie and Mr. Mayo support the opposite opinion. Sir B. Brodie supports his views by argument principally, and by observation of vessels containing red blood, extending from a diseased bone into cartilage covering it. Mr. Mayo notices the same circumstance, and refers to preparations, now in the Museum of King's College, London, and of which he has given representations in the ninteenth volume of the Society's Transactions. These specimens I have examined with great care, but, so far as I can observe, they exhibit nothing at all satisfactory on the subject.

There is some injection on the edge of the cartilage of the condyle of the femur in one of the preparations, and a shred of lymph is adherent, apparently at one point, to the surface of the cartilage. Vessels filled with injection may or may not exist in the cartilage, but this can only be ascertained by having thin slices made, and putting these under a good glass.

I have been able to demonstrate the existence of vessels, most undeniably, in the articular cartilage of several diseased joints, and present a sketch of one portion, Plate I. fig. 3. It will be observed that the vessels run straight, in parallel lines, from the injected membrane of the bone. Many of these are joined at their further extremity in the cartilage, thus forming long loops. The possibility of cartilage being acted upon, nourished, absorbed, and repaired by its own vessels, must thus be admitted. In fact, in many of the specimens in my possession, lymph is deposited on the surface of ulcerated cartilage, and injected vessels can be traced, passing into this lymph.

Under circumstances favourable for it, solutions of continuity in cartilage appear to be repaired, without, however, much reproduction of the tissue.

It would appear that ulcerative absorption of cartilage occurs in three forms:—

First. In consequence of disease of synovial membrane, which becomes much swollen, and to which processes of adventitious tissue are superadded, the cartilage is removed where it is encroached and pressed upon. The prolongations of the membrane, in a highly injected state, as well described by Mr. Key, fit most accurately to every crevice of the breach of surface in the cartilage. At first there is no union of the surface, the membrane being merely accurately adapted and closely applied to the ulcerated surface. Frequently, however, as the disease advances, adhesions form betwixt the vessels of the synovial membrane, and those proceeding from the medulary web. An adhesion of considerable length is often formed betwixt the synovial surface, and the articulating end of the bone.

Second. Absorption of cartilage seems often to arise from swelling and intense vascularity of the tissue connecting it to the bone. This cellular tissue is scarcely demonstrable in the healthy condition of parts, any more than is the vascularity of the articular cartilage; but it becomes most remarkably developed in a state of disease. The cartilage is, in consequence, loosened

and thinned; at first, apparently, by interstitial absorption. Then it becomes perforated, and an ulcer, of greater or less extent, with thin undermined edges, is presented. In consequence of disease of the interposed tissue, the cartilage is sometimes thinned, and ultimately detached in flakes; forming, in fact, sequestra of the tissue.

Third. Lastly, cartilage still firmly adherent to the subjacent bone, is permeated by vessels communicating with those of the bone, and ulceration proceeds from the free surface. The cartilage, very often previously swollen and softened, is gradually and irregularly thinned; the bone is exposed, and is finally acted upon also, by ulcerative absorption. The ulcerated surface is generally coated by a layer of organized lymph. More than one form of the ulcerative process may sometimes be observed in the same articulation.

**Edinburgh Monthly Journal of Medical Science, February,* 1841, *p.* 130.

87.—SOME REMARKS ON THE MOTION OF THE BLOOD GLOBULES.

By W. Addison, Esq.

[The following interesting remaks are extracted from Mr. Addison's interesting papers in the Medical Gazette. They were penned with the microscope before him.]

When a particle of salt is applied to the web of the frog's foot, the current of blood in the capillaries within its influence is retarded; the globules seem to have some difficulty in getting on; they are pushed and heaped together and the vessels appear somewhat gorged. Where the action of the salt is more considerable, the vessels are more enlarged, and the globules are quite stationary. After a short time the globules in some of the smaller capillaries, where the salt has had only a feeble effect, begin to move more quickly, seeming to answer an impulse from behind, and a number of them may be seen to make a sudden rush through a capillary; then, for a moment or two, the vessels appear quite empty of globules, and then another lot rush through with great rapidity; next, without any apparent reason, they hold back, and are heaped together for a moment; again the channel of the vessel seems suddenly to admit them, and they hurry through it in the same manner.

On examining the web two days afterwards, one or two inflamed or enlarged red vessels were seen by the naked eye, produced by the action of the salt: the web was placed under the microscope, and the following notes penned at the time:

In some of the larger capillaries, or smaller veins, *i. e.*, in some of the larger vessels seen in the field, there are a great number of globules, and it is quite extraordinary to observe the difference in movement between these round speckled globules, and the oval ones; the blood globules pass in a continued stream, while, in the same fluid, in the same vessel, is a great multitude of other (lymph) globules, which do not move, or do so very sluggishly; every now and then they move slowly, apparently urged on by the repeated knocks they receive from the blood globules. It would appear that after the capillary vessels had been acted on by the salt, that the round (lymph) globules accumulate in an unusual manner, and the blood globules repeatedly slide over and knock against them. In some of the vessels there is a rapid stream of blood in the centre, whilst at the circumference there are many stationary round spotted globules, which do not obey the impulse which urges the stream of blood, but remain or move on slowly by little starts at uncertain intervals, and with unequal pace.

The action of the salt disturbs the reciprocal action between the blood

*Taken from the Med. Chir. Trans. Vol. 23

and the capillaries: under its influence the blood globules that have been passing one way in a capillary will sometimes become stationary; they are frequently seen to oscillate to and fro, apparently hesitating which way to go, and then they very often actually pass in a retrograde manner.

It is after the disturbance or inflammation produced by the salt that the three forms of globules are seen.

I infer from these observations that the blood corpuscules, in the normal condition of the circulation, move through the capillaries with a flat surface perpendicular to the axis of the vessel: hence when the circulation is seen in the microscope, the edge of each corpuscule will be turned towards the observer, and they will all appear oblong or oat-shaped: a few lymph globules may occasionally be seen interspersed among them. When inflammation is excited, various changes take place. After the lapse of a short time more lymph globules are developed, and the blood corpuscules, instead of circulating with their flat faces perpendicular to the axis of the vessel, and the edge more or less perfectly turned to the observer, turn round and pass edgeways through the vessel, so that frequently the circular form is seen.

As the blood corpuscule in all animals has a determinate form, and as they pass singly, one after another, in the minute ramifications of the capillaries, it is probable that in a normal condition of the circulation they move along the vessel in a certain fixed mode. In the human subject the blood corpuscule is of a flat circular figure, like a penny-piece; and such a body in passing along a tube must do so either with the thin edge or with one of the flat faces in its axis: if in the former manner, only two points of the corpuscule will impinge on the coats of the capillary; if in the latter it is evident that in an elastic channel, which embraces the corpuscule, the whole circumference of the vessel will be impinged on by each passing globule; the interior of the vessel will be, as it were, scraped clean, and kept clean by every passing corpuscule.

Medical Gazette, January, 29, 1841, *p.* 690.

88.—ON THE ANATOMY OF THE APONEUROSIS OF THE MUSCLES OF THE EYE.

By M. Bonnet.

In a letter to the Academy of Medicine at Paris, M. Bonnet states, that there is a fibrous capsule lying between the globe of the eye and the layers of fat in the orbit. His researches explain scientifically the occasional persistence of the action of the muscles of the eye, after their division in the operation for the cure of strabismus. This capsule is concave and open in front; it is inserted into the anterior extremity of the optic nerve; surrounds, without being in actual contact, the two posterior thirds of the eye; and terminates in the eye-lids, which are its prolongations. The recti and oblique muscles pierce it to reach the eye; they form strong adhesions with it, and have thus two insertions, the one in the sclerotic, and the other into the fibrous capsule. In cases where the persistence of squinting remains after operation, the anterior insertion (or that into the sclerotic) has alone been divided, the muscle still continues to act to a certain extent on the eye, from that into the capsule still remaining entire.

To show the capsule, remove the globe of the eye, and cut the muscles and optic nerve as near to the sclerotic coat as possible. The capsule is then observed, and the muscles are seen to pierce it. The adhesions which muscles contract are so fine, that in pulling them by their posterior extremity, they break rather than yield their attachment to the capsule.—*Abridged from Gazette Med. de Paris*, 13*th Feb.*, 1841.

Edinburgh Monthly Journal of Medical Science, May, 1841, *p.* 376.

89.—USES OF THE SPLEEN.

By Dr. G. Dermott, Esq., Lecturer on Anatomy and Surgery.

[The following ingenious theory is reported from Mr. Dermott's Lectures on Anatomy:]

The spleen being made up of vessels, is necessarily a reservoir for blood, it is very spongy and compressible in its texture, and is set between the cul-de-sac of the stomach and the parietes of the left hypochondriac region; consequently when the cul-de-sac is distended with food, it must be considerably compressed between distended cul-de-sac and the false ribs. The splenetic artery will be also particularly compressed, as it is entirely in the fissura longitudinalis of the spleen. Hence the blood, which would under any other circumstances have entered the spleen freely, is prevented, in a great measure, from so doing when the stomach is distended, and instead of being directed through the splenetic artery, it is determined in greater quantities to the other branches of the cœliac axis; that is, it is carried by the hepatic to the liver, and by the coronory artery to the stomach.

These two viscera being then under a state of excitement, in consequence of the presence of the food and chyme in the stomach and duodenum, whereby the blood is more readily determined to them, which blood would, if the spleen were not compressed, and if the stomach had been collapsed, have gone to, and circulated through the spleen.

Thus we see the reason why the three arteries supplying the spleen, the stomach, and the liver, shall arise from one axis—and why also the pancreas and duodenum are supplied with vessels from the splenetic artery before it enters the spleen, and from the hepatic artery. Thus the *spleen* is a source of irritability to the stomach, liver, pancreas, and duodenum.

Although the hepatic artery brings arterial blood to the liver, and the distinguishing constituents of the bile are not produced from arterial blood but from venous, still a greater quantity of arterial blood passing to the liver will be the means of increasing the action of the venous secreting vessels (the vena portæ), inasmuch as it is the arterial blood which supplies the liver with irritability, or that principle which is the proximate cause of organic action. It may be conjectured, too, that the elastic coat of the spleen may possibly aid the effect of the distended cul-de-sac of the stomach, in compressing the vessels of the spleen. 2ndly. The spleen is not only a great reservoir of blood when the stomach is not distended and excited by food, but in consequence of the tortuousness of its vessels, their minute divisions and the immense predominancy of the venous vessels over the arterial, the blood must circulate slowly through the spleen, and the spleen must be a great manufactory (if I may be allowed the expression) of venous blood, which blood flows through the splenetic vein, and along with that from the other branches of the vena portæ is carried by the vena portæ to the liver, where there is separated from it, by the secreting power of the acini, the constituents of the bile.

By the spleen more venous blood is made, and more carbon is thrown out of the system by the liver; the bile I believe would be found to be more in quantity in an animal with a spleen, than in an animal without one.

I consider that the uses of the spleen are clearly pointed out by reason, guided by anatomy, and I believe that no other essential uses will be discovered to be attached to the spleen, than those that I have now mentioned.

Medical Times, April 3, 1841, *p.* 6.

RETROSPECT.

We cannot take a retrospective view of the steady progress of the Medical Sciences without solid pleasure. We cannot witness the thirst for practical information on the part of the English practitioner, instead of the too hypothetical practice of our neighbours on the continent, without the same kind of satisfaction. "No one," says Dr. Scott, in his late admirable retrospective address before the Provincial Medical Association, "can take any comprehensive survey of the continental periodicals, and indeed medical publications generally, without congratulating himself upon the great superiority of those of our own country for all practical purposes, which is the great end of all our labours. The innumerable theories which continental practitioners are constantly introducing serve for the most part, rather to display their ingenuity and industry, than to establish any satisfactory principles of treatment.

It will be our business in this short summary of practical information, which has been added to English medical literature of late, to confine ourselves chiefly to what is to be found scattered in our valuable Journals during the last six months, and condensed in the present volume. Our space will admit of little more than a mere reference to the different articles to be found in this volume.

In most of those cases of epilepsy which depend more on functional than organic change, Dr. Babington has found that a tonic mode of treatment is the most successful. In some cases indeed where the habit is gross and circulation forcible, depletion may be called for, but generally, as in tic douloureux, and other spasmodic states of the nerves of motion and sensation, dependent on nervous irritation, the opposite treatment may be useful. Sulphate of zinc is his chief remedy. We would here again refer the reader to Mr. Lane's observations on the *oxide* of silver, to be found in Art. 6 of our second "Retrospect." This excellent remedy will thus be deprived of its terrors to the medical man, and may be given in preference to the sulphate of zinc in the cases of epilepsy mentioned by Dr. Babington.

Chorea has been most successfully treated with electricity. In that magnificent institution, Guy's Hospital, where no expense is spared when the cause of science and charity can be advanced, there is a ward especially fitted up with every convenience necessary to ensure the good effects of electricity; and here Dr. Golding Bird has made the most successful and interesting applications of the science. In thirty-six cases of chorea which he relates, the success was remarkable. "From the results of the cases, no doubt can remain that electricity really exerts a decided, not to say specific influence on these affections." At the same time it is necessary to be careful how much we attribute to the specific action of the electricity, and how much to the irritation produced by drawing sparks from the spine, and the consequent papular eruption: especially as the relief obtained was often in a "ratio with the facility with which this eruption was produced."

Those cases of *paralysis* which depended on some functional affection, or upon the impression produced by effusion in some part of the cerebro-spinal centre, were treated with similar success by the same remedy. *Rheumatic paralysis* also was frequently attended with similar success.

But the most beneficial effects were observed in amenorrhœa. Dr. B. says, "the rule for insuring success in the great mass of the cases of amenorrhœa is sufficiently simple; improve the general health by exercise and tonics; remove the accumulations often present in the bowels by appropriate purgatives; and then a few electric shocks, often a single one, will be sufficient to produce menstruation, and at once to restore the previously deficient function." As soon as the discharge returned, he desisted from his application, and recommenced about a week before the expected return. Dr. B. found little or no benefit to accrue in cases of amaurosis, nor in cases of convulsions where the brain itself was involved.

Dr. Barlow's view of the "laws which regulate the deposition of Tubercles" is somewhat different from that presented to us, by some of our favourite writers, as Stokes and Carswell; his view is nevertheless to be attentively weighed by the profession. His opinion rests upon the following rule, which he asserts to be pretty general, viz.: "*that any organ is most liable to become the seat of tuberculous deposit, when its vascular and functional activity bears the greatest ratio to that of the other organs of the body.*" Now, although he differs in this important opinion from some of our ablest writers, who regard the very opposite condition to be the case, Dr. Barlow brings forward his reasons in a very forcible and practical manner; he traces the progress of the animal economy towards its perfection in the adult, and with truth, asserts, that the different parts of the body, according to their development, are prone to the attacks of disease; thus, in the infant, the brain is chiefly developed, then the abdomen, and lastly the chest: and generally in this order does disease most acutely and dangerously show itself. In the brain, in infancy and early childhood; in the abdomen, in the more advanced periods of childhood; and lastly, in the chest when the frame has become more matured, and when the lungs are called upon more than usually to exercise their functions. Then again, it is well known, that the liver and the lungs are co-adjutive and supplementary to each other, which is exemplified in the different classes of animals, in which the liver increases as respiration diminishes, "having its maximum of development in fishes, its minimum in mammalia, and its mean among reptiles." The fœtus in utero resembles the fish, with a large liver and small lungs, accordingly it is seldom or never that tubercles exist in the lungs before birth; and it is certainly much more frequently the case that a child dies *with* pulmonary phthisis than *of* it: Dr. Barlow explains the reason why tubercles generally commence at the superior parts of the lungs, in the following way: "it must happen that those cells, in order to reach which the air has the least distance to traverse, must be the first, and therefore most constantly inflated; and these cells occupy the upper and posterior portion of the lungs;" this portion of the lungs also offers less resistance to the air, and is therefore more easily inflated.

Every practitioner must occasionally have met with inconvenience in applying his stethoscope, especially when practising among the poorer classes of the community, whose beds and persons are not always the most cleanly. Dr. Golding Bird's flexible stethoscope, we forsee, may be made an exceedingly useful instrument, and is in many respects, a decided improvement, both for the pocket and for practical purposes, especially for the purpose of *obstetric* auscultation. The instrument may be applied under the bed-clothes to the abdomen of the female, without the least exposure of the person, and without the least deterioration of sound, as at first sight might be expected. The medical man takes his seat at the side of the bed, and by applying one

end to the patient and the other to his own ear, will have the sound conducted perfectly well.

The intensity of the sound does not appear to be diminished by the length or flexure of the tube, although certain sounds of the heart depending upon impulse, may not be so perceptible as by means of the solid stethoscope; this, however, is not a disadvantage, as it isolates impulse from sound, and enables us to distinguish, even better than with the solid instrument, certain soft murmurs existing in cardiac disease.

Many cases of apoplexy and paralysis occur without any organic disease of the brain; and yet how often do we find practitioners treat every case of convulsions by venœsection, without at all inquiring into the history of the case, and without in the slightest degree, examining the state of the heart, stomach, &c., upon the sympathetic, or really diseased action of which, the nervous centre may be thus deranged. Mr. Copeman brings forward some interesting cases, which confirm the opinion of Dr. Corrigan and Dr. Law, on this subject, to be found in the first number of our "Retrospect." The cases of nervous derangement, which Mr. Copeman adduces, convinces us still more than ever, that venœsection is too generally adopted, and that even stimulation is frequently more beneficial. Mr. Copeman says, that "it is beyond a question, that pressure upon the brain may exist to a greater extent than can be imagined to occur from loaded blood-vessels, without apoplectic or paralytic symptoms being produced;" and Dr. Law brings forward cases in the paper before referred to, clearly proving that the apoplexy was owing rather to a deficiency than a fulness of blood in the cerebral vessels. Mr. Copeman has found as a general rule, though not without exceptions, that venœsection is not beneficial where the patient is 60 years of age or upwards, where the pulse is feeble, very frequent, intermitting, slow or large, and inclined to double beat; in these cases, on the contrary, diffusible stimuli will be found most beneficial, "a quick, wiry, resisting pulse, flushed countenance, warm perspiration, noisy breathing, and a tendency to spasmodic muscular contraction, occurring in persons of an earlier age," call for abstraction of blood, &c.

The rapid cure of cynanche by guaiacum as described by Mr. Bell, of Banhead, is deserving of trial. Also the treatment of intermittent fever with piperine instead of quinine, which frequently fails. In these cases Dr. Hartle gives three grains every hour until eighteen grains have been taken, beginning the medicine as soon as the sweating stage was established; on the second day when the intermission was complete the same quantity may be given every three hours.

We may also refer to Dr. Newbigging's and Sir Charles Bell's treatment of epilepsy, sciatica, and other nervous disorders by means of croton oil which has been found exceedingly useful, not only from its purgative effects, but also from some peculiar properties independent of that quality; for other purgatives have not that decided effect which this drug seems to have upon neuralgic diseases. Those cases were chiefly benefitted in which there was no organic disease of the brain, but simply some irregularity in the cerebral circulation.

Dr. Christison's use of opium in internal inflammations is now well known to the profession, and as the practice is adopted by one of our most eminent physicians with so much confidence, it becomes our duty to place it on record, although we cannot fully agree with it; the experienced practitioner, however, will draw his own conclusions. Dr. Christison finds opium of the most use in inflammations of the mucous membranes, especially coryza, catarrh, influenza, and dysentery. He would cure coryza at once by causing the patient to avoid all meals after dinner, to use liquid sparingly, and by giving a full dose of muriate of morphia or Battley's solution at bed-time; and breakfast before getting up the next morning. It seems necessary, how

ever, that the remedy should be administered early in the attack. "Febrile catarrh too may be checked abruptly in the same way, if patient and physician are lucky enough to meet during the first or second day at fartherest." Influenza he also checks in the same way. In the treatment of dysentery by the same means we agree with him; and especially if combined with properly regulated doses of calomel, and on the same subject we cannot but disagree with Mr. Pereira who states that "in dysentery opium can only be used beneficially in the latter stages and then with great caution." Whereas most practitioners will acknowledge that calomel and opium with occasional mild laxatives are our best remedies and will seldom fail. Dr. Christison's treatment of acute cynanche tonsillaris by opium seems to be as successful as the guaiacum treatment adopted by Mr. Bell; and it is well that two such powerful and successful modes are pointed out in the treatment of cases which, though but seldom fatal or dangerous, are often exceedingly distressing. In these cases Dr. Christison generally gives ten grains of Dover's powder every half-hour till one drachm has been taken, and he adopts the same treatment in many cases of acute rheumatism in young adults of sound constitution, previously, however, abstracting blood very freely to the approach of faintness. It is particularly necessary in these cases that the powders be given immediately after the blood-letting and before the circulation recovers its state of excitement, which it will otherwise soon do; "also that the treatment shall be enforced before the close of the fourth day, but earlier if possible; and that the case shall be real acute rheumatism, not one of the subacute form or gouty rheumatism, where, for some days previously, the local inflammation has been shifting from joint to joint with irregularly intermitting fever." Dr. Christison refers to the same kind of treatment of internal inflammation which was adopted by the late talented Dr. Armstrong; and which, though bold, might often no doubt be successful. The treatment consisted in the very free abstraction of blood till faintness approached, and the immediate administration of a full opiate. The case would often terminate favourably at once; at other times it was necessary to repeat the operation in 12 or 24 hours; this treatment should only be adopted in the earliest stages of the inflammation.

On perusing Dr. Watson's interesting paper on hæmorrhage we are reminded of one of the most valuable laws of the animal economy which he omits to notice, and that is, *that during a state of sickness blood coagulates with remarkable rapidity*. In our opinion this simple fact will in a great measure account for the success of blood-letting which is so generally adopted to restrain hæmorrhage, and which Dr. Watson places the first on his list of remedies. If however the above law is correct, there seems little doubt that blood-letting is useful not only from its diminishing the *vis a tergo*, but also from its especial influence in producing that state of continued faintness so favourable to the formation of a coagulum at the orifice of the ruptured vessels. And here a question arises whether or not we cannot produce the same state artificially by the use of nauseating doses of ipecacuanha in the way recommended by Mr. Trenor; but not even explained by either himself or Dr. Osborne, who preceded him in recommending the remedy. It seems to us that in most internal hæmorrhages blood-letting may be superseded by ipecacuanha or some other medicine which is able to keep up a state of nausea for a sufficient length of time: not only will the open vessels be sooner closed by coagulum and the *vis a tergo* be diminished by the weakened action of the heart but an immense quantity of the vital fluid may be preserved for the future welfare of the patient and his more rapid recovery. Observe the effect of sickness in stopping hæmorrhage either in the early or latter months of pregnancy or after delivery. Every practitioner of experience is aware that a patient will occasionally bleed to an enormous extent before faintness comes on, the flooding will then gradually cease; this is often at-

tributed either to the contraction of the womb or to the diminished *vis a tergo*, but if to the former, contraction is not always the case, and the flooding might arise before the womb has even begun to contract as in the months of pregnancy, if to the latter, then why does not the flooding return when the *vis a tergo* has been restored: Mr. Trenor's cases published in our first number will be well worth perusing by those who have not hitherto taken the trouble to do so.

One of the severest scourges of the human race has been small-pox. Vaccination has been one of the greatest blessings bestowed upon us to counteract its frightful ravages; but as cases of the kind will probably continue to occur more or less according to the prevalence of vaccination, we perceive with pleasure the increased confidence placed in mercurial applications as an antidote to its disfiguring influence. The French practitioners will be delighted at the discovery of such a remedy—it is something to look at and will exactly suit them. It consists in the application of a mercurial plaster called the plaster of Vigo. The whole face is covered with this plaster, merely leaving a space for the mouth, nostrils, and eyes; a little mercurial ointment is applied to the eyelids. The whole body also may be covered with the same plaster. It should be applied before suppuration has commenced, and whilst the eruption is still in the form of papulæ which it seems to change into vesicles or tubercles and ultimately produces their complete abortion, altogether preventing suppuration taking place. Friction with mercurial ointment has been found equally efficacious, but this also must be applied before the eruption has assumed the pustular form. Whilst on this subject we may mention an effectual way of conveying vaccine matter into warm climates which has hitherto been found so difficult and fruitless. It is by means of vaccine crusts or the scabs which result from vaccination. The vaccine matter dries and hardens. It can then be conveyed into any climate without deterioration; it is then powdered and moistened for use, and the result is the same kind of pustule which we perceive from vaccination in our own country.

In cases of albuminous urine, it is necessary to bear in mind the recent investigations of Dr. Rees. The coagulation of urine by boiling, has hitherto been considered a sufficient proof of the presence of albumen; but this is not the case, urine may contain not only the albumen but also an alkali, and in this case boiling will not coagulate it. Albumen, therefore, may be present and yet not detected, according to the hitherto received mode of detection; it is necessary, according to Dr. Rees, to add nitric acid, in which case, a copious precipitate will be produced, if an alkali be present. Dr. Rees asserts, that the knowledge of the acid or alkaline condition of urine cannot assist us in determining, whether or not, it contains albumen, by applying heat alone, if a *positive* result be obtained, "for the coagulum may be caused by the earthy phosphates, whether the urine be alkaline or acid; but the case is different when the result is *negative*, since acid urine never prevents the precipitation of albumen by heat, though alkaline urine may, and therefore a specimen, if shewn to be acid and not coagulable by heat, may safely be declared free from albumen." But nitric acid may also mislead the practitioner, unless perfectly conversant with the changes produced by other substances, thus, when the lithates exist in the urine in excess, a mineral acid will cause a deposit of lithic acid; but this is generally of a brownish red colour, and very different to that of albumen produced by nitric acid.

Mr. Ure's mode of treating gouty concretions with benzoic acid is deserving of notice; he gives it in scruple doses an hour after a meal. The precipitate produced in the urine by the addition of muriatic acid is hippuric acid, which has taken the place of the uric acid. "By thus substituting hippurate of soda, a salt of easy solubility for the very sparingly soluble urate of soda, the author conceives that the formation of the tophous concretions

may be altogether prevented." Scruple doses certainly seem to us to be large, but we take Mr. Ure's word for it that no harm followed its use in the cases which he advances.

Dr. Davis's method of treating acute rheumatism, by Cinchona Bark, in scruple and half drachm doses, three or four times a day, is spoken of with the greatest confidence. He precedes his treatment by copious blood-letting and has seldom known the remedy to fail; he says, "I feel myself entitled once more to repeat my confident assertion that I consider the Peruvian Bark, the most powerful remedy that can be employed in an incipient case of acute rheumatism; without exceptions, in my practice, it has uniformly produced the most salutary effects."

One of the most important steps lately taken towards the recovery of the insane, is that of Dr. Conolly, at Hanwell; and if it prove to be successful for a lengthened period, we shall hail the humane treatment, there adopted as one of the greatest achievements of the physician in modern times; we should doubt, however, whether any institution can be in the continued possession of officers, both superior and inferior, who would make a point of carrying out the views of treatment recommended in our 35th article. We have attentively perused the numerous papers and letters which have appeared in the different journals, during the last twelve months, and although much may be said on both sides, we consider Dr. Conolly fully borne out in his views, by the success which has attended his proceedings in the noble institution, of which he has the care. We can only refer the reader to the able article, No. 35, which contains a short but clear explanation of this mode of treatment.

The invariable treatment of delirium tremens with opium cannot be looked upon as judicious; there are many complications in the progress of that disease, which would decidedly contra-indicate the opium treatment. Many patients sleep to wake no more, as we ourselves have witnessed. The table of Dr. Ware, of Boston, N. A., at page 66, shews at one view, the success of the different modes of treatment in thirteen cases, all of which were uncomplicated, except one in which there was inflammation of the arachnoid membrane, as determined by dissection. "It appears that of fifteen cases in which opium constituted the principal remedy, six died; whilst of fifty-four, in which opium was not used at all, or only incidentally in small quantities, only five died;" this fact alone, will be sufficient to convince us, that the indiscriminate use of opium in delirium tremens, especially by inexperienced practitioners, is unsound practice and ought not to be countenanced. It has been ascertained, that those cases in which opium was pushed to the full extent advised by writers on this disease, the mortality was one in two; whereas when no active remedy whatever was used, the mortality was only one in twenty-nine. The co-existence of other diseases is frequently overlooked. The practitioner finds that his patient is an habitual drinker, that his hand trembles, that he is restless and sleepless, with all the other common symptoms of delirium tremens, and without going further into the case, he immediately commences the opium treatment. The result of this empirical mode of treatment may be anticipated from examining the cases of Dr. Ware.

The use of the gum-elastic tube, in cases of extreme abdominal distension, and especially when occurring in inflammation and fever, is a decided improvement in practice, as may be seen by referring to the case of Dr. Donovan; he was induced to make use of this tube from the success which attended the same instrument in the hands of Dr. J. O. Beirne and Mr. Maunder, in cases of strangulated hernia. The instrument was passed up the intestine to the extent of eight inches, when an immense quantity of fœtid gas escaped, and the distended abdomen returned to its usual size. The same diminution of size may also be found highly useful in many cases of strangulated hernia, and certainly the operation for that affection ought

never to be attempted before the rectal tube described in our first number, has been introduced, especially as the introduction is so simple an operation, and may save the life of the patient. Dr. Donovan's patient was certainly in the most deplorable condition, death seemed to be inevitable, and yet this simple operation saved his life.

The catheter used by Dr. Buchanan, of Glasgow, so long ago as 1822, has been little known in this country till the late introduction of one similar in principle, by Mr. Foulkes, of Liverpool, who nevertheless seems to have been quite ignorant that Dr. Buchanan had anticipated him in the discovery. It consists of several instruments which slide into each other, so that if any particular sized catheter is found too large for the stricture, another still smaller one is pushed forwards, without the trouble of the former one being withdrawn. Whether this improvement will be found necessary to be acted upon by medical men, we cannot forsee, as the common catheter has always hitherto been found to answer every purpose, and any difficulty in introducing the different sized instruments, may oftener be attributed to the unskilfulness of the operator, than to the fault of the catheter. There are no doubt, however, cases in which Mr. Foulkes' instrument will be found an advantage.

We were last year wearied with the different pamphlets and articles on the cure of squinting, and we are now threatened with the same run of cases on stammering. The different modes of operating, and the opposite theories respecting the affection lead us to suppose that not the same good result will attend this as the former. Professor Dieffenbach's operation of excising a considerable portion of the tongue, will certainly not be countenanced by the profession in this country, and if one life in a hundred is lost in attempting to cure an affection, at most only disagreeable, it will be improper to undertake it. The professor's mode of operating, will be seen at length in another part of this volume, and we can here only refer the reader to it. We can look upon the operation of Mr. Bennet Lucas with more confidence, inasmuch as the danger is slight, the operation more simple, and the result, if the cases be well chosen, more satisfactory. He differs both in his theory and operation from Dieffenbach, and has found some of the worst cases of stammering in those persons who cannot elevate the tongue to the roof of the mouth, or the superior alveolar arches. He found no good effect from dividing the frœnum linguæ, and therefore excised portions of the genio-glossi muscles. This was followed by happier results, and the patient was considerably benefitted. Mr. Yearsley and Mr. Braid have found much benefit to arise from removing the tonsils and uvula.

We would here just refer the reader to the caoutchouc sutures, lately recommended by Mr. Nunneley, of Leeds; there are many cases where the unelastic ligature in common use is even prejudicial, and where a more elastic thread might be advantageously substituted. It produces less irritation, and holds the divided parts together with much less stretching than the common ligature, and at the same time it keeps up an equal degree of tension, "for if the parts swell, the ligature gives way in proportion to the pressure: on the contrary, do they contract, so also does the ligature and an equable approximation is maintained." In hare-lip this kind of ligature might supersede the use of pins.

Although so much was written last year on the subject of squinting, we cannot help noticing here what seems to us a decided improvement in this beautiful little operation. Every one must have been ocasionally if not frequently disappointed with the results of his operation. This has been the case so much in France, that some of the best surgeons have looked upon the operation as a failure, and have said that it will only maintain an ephemeral fame. A patient applies to us with mutual convergent strabismus; the surgeon divides the adductor of the eye really affected, and yet the inversion is not

cured. This is attributed to very different causes by different surgeons, some attributing it to an undue contraction of the inner fibres of the superior and inferior rectus, others to an unhealthy state of the external rectus or abductor, healing of the wound of the conjunctiva by first intention, an imperfect division of the abductor and its cellular tissue, &c., &c. Now Mr. Elliott thinks that although the remaining inversion is no doubt partly caused by the contraction of the inner fibres of the superior and inferior rectus, the real cause of the evil is the "non removal of the mutual convergence, the continuance of which is to be attributed to the ill directed association of the motific nerves, and the continual inversion of the eye operated on, depends on its very indistinct vision, which renders it comparatively unfit for use." So that when by operation he fails in restoring the unsound eye to its proper position, he divides the adductor of the sound eye and by this means renders the two eyes *symmetrical* or *parallel*, and at the same time equally prominent. But we have not space here to enter more minutely into this subject, and can only refer the reader to Mr. Elliott's interesting communication. His views have indeed been opposed by some equally clever men, but we confess our own opinion to be in favour of Mr. Elliott's practice, which we hope to see confirmed by other practitioners.

Perhaps our art has not made greater advances in the treatment of any diseases than in those of joints; and when we observe some eminent surgeons laying open the largest joints with impunity, not being so much afraid of a free incision which enables the practitioner to heal the part by granulation, as in other wounds of the body, as he is of a punctured wound; and then again, when we observe other surgeons actually excising the whole or different parts of joints with success; we cannot but be gratified at the progress of our art. At the same time we cannot agree with those surgeons who value the operation, according to the *quantity* of diseased structure which they remove, but should rather adopt the views of Mr. Bransby Cooper, "that the great benefit which is derived, is from exposing and perfectly laying open all the affected tissues, so that nature is not herself obliged to produce sinuses and ulcerations through the soft parts. It is not the *quantity* of bone you cut away, but by exposing a large surface you allow the diseased tissues readily to come away, instead of burrowing through the soft parts." The articulating surfaces are generally the most that need be removed, and by removing more, we only in general detach muscles, which would otherwise have been of the greatest service to the new joint. These remarks are made with the excellent papers of Mr. Rutherford Alcock, before us, to which we especially refer the reader, and advise him to read the original communications, if he wishes for more detail.

Mr. Braid, of Manchester, has met with success in curing or relieving cases of talipes which have arisen from a *paralytic state* of certain muscles, instead of the more common cause of talipes, viz.: a too powerful contraction. He excises a portion of the tendons of the diseased muscles, and then unites the separated extremities, by which means he produces such a degree of contraction in the limb, as to restore the deformity, and greatly to benefit the limb; great care is necessary to excise a proper portion and no more, "if too little be excised it will not excite that activity of contractile power in the muscular fibre necessary for the correct and energetic discharge of its functions;" if too much, "the result will be the innervation of the other mus cles of the limb operated upon."

In many cases of ptosis, the operation performed by Mr. Curling, and Mr. Hunt of Manchester, will be found beneficial. The upper eyelid, being paralysed, hangs loose and motionless over the eye, which is consequently kept covered; and if this happens to be the case on both sides, the eyes are nearly useless. But by producing adhesion between the eyelid and eyebrow the occipito-frontalis muscle is brought into use in elevating the lid, and a

considerable degree of motion is consequently imparted to the part. Mr. Hunt noticed this fact in 1830, and states that the advantage resulting from the operation, may occasionally be diminished, on account of the too great and constant exposure to light of the retina, as in most of these cases "all the branches of the third pair of nerves are paralysed, and in consequence of the connection of one of them with the lenticular ganglion, from which body the ciliary nerves, supplying the iris, proceed, the circular muscular fibres of the iris generally become paralysed, and a widely dilated pupil is the result.

On the eradication of inverted eyelashes Dr. James Hunter of the Edinburgh Eye Dispensary, whose sudden death we deeply lament, makes some valuable suggestions, which, however, are only applicable to those cases of inversion of the hairs where the eyelid itself remains in its proper position; if this part be turned inwards it requires another operation. He first ascertained the exact position of the hairs, which is not so easy as might be expected, as they might be white and so minute as not to exceed the 1-800 of an inch in diameter. It is well when detected to blacken them with a little belladonna so that when about to puncture them they may be easily seen when contrasted with the white sclerotic coat. They should be punctured with a lancet or iris knife entered close to the base, in the direction of their growth, to the depth of an eighth of an inch, and moved about a little, so as to widen the bottom of the wound and cut the bulbs. When the bleeding has ceased they are to be inoculated with the drilled end of a darning needle slightly damped and dipped in powdered tartrate of antimony, or what is still better, with a fine point of tartar emetic, made by coating some fine point, as the point of a fine lancet while hot, with sealing wax, and then dipping it into the powdered tartar emetic; this is to be inserted into the puncture and held there for a few minutes. "The evulsion of the inverted eyelashes is the last step." They should be seized length ways close to their roots and drawn with a slight jerk. Dr. Hunter further describes his way of making very fine points of caustic and other such substances which will be found highly useful in practice. The injection of iodine in cases of Hydrocele is now being very generally used instead of the common injection of zinc, &c. Mr. Bransby Cooper used it in the proportion of 2 drachms of the tincture to 6 drachms of water. Dr. Henry Goodeve has used this in 276 cases in India, and has only failed twice.

The dilatation of the urethra in stricture as practised by Dr. Arnott has been found highly useful by that gentleman. He makes use of "a tube of oiled silk lined with the thin gut of some small animal, as the cat, to make it air-tight, and attached to the extremy of a small canula, by which it is distended with the air or water from a bag or syringe at the outer end with a stopcock or valve to keep the air in when received." The canula may be of elastic gum, or of the flexible metal used to make the metallic bougies, or of silver. The instrument is easily passed and as soon as the bag is sufficiently within the stricture as much air is to be injected as the patient can easily bear.

The removal of foreign bodies from the joints by means of subcutaneous incisions may be another important improvement in the treatment of these parts. We have already referred the reader to the excision of the whole or parts of these portions of the body. In removing a foreign body from a joint the knife is introduced at some little distance and carried under the skin of the cavity of the joint, which is thus opened subcutaneously, and the foreign body allowed to escape or pushed into the surrounding cellular tissue where it must remain till the wound in the joint has healed.

The foreign body may then be easily liberated by an incision. M. Goyrand, of Aix, and Mr. Syme, of Edinburgh, performed this operation without the previous knowledge of each others intentions.

Dr. Charles Paterson, of the Rathkeale Infirmary, has suggested, and made use of a very ingenious method of passing the catheter in difficult cases; and especially in those in which the third lobe of the prostate gland is the obstructing body. He attaches a common bladder to one end of a common catheter, in the same way as we affix it to an enema pipe; having a bit of a cork and a string attached to it, just in the form of a common enema apparatus; the catheter is then passed down to the stricture or as far down as the patient can bear; the fluid is then injected along the catheter, which should be as large as can be admitted in order as much as possible to prevent the escape of the fluid at the sides. The bladder being filled with urine at the time, opposes a considerable resistance to the entrance of the fluid and the urethra in consequence becomes distended, but the distension chiefly acts on the neck of the bladder and the parts nearest to that part, and, "from the circumstances of their connexions, the distension principally takes place in the direction of the rectum, forcing the tumid middle lobe of the prostate backwards and downwards and so diminishes the obliquity of the passage." It may be also that the bladder admits some of the liquid, and becoming still further distended in the way which Sir Everard Home describes to occur about the third day of the obstruction, its posterior part bulges backwards and draws the swollen lobe with it. The urethra thus acquires a more normal direction, the tumid lobe of the prostate becomes altered, and the instrument generally now glides into the bladder with much more ease. A pig's bladder is found to answer perfectly well.

The treatment of inflammation of the testicle by means of compression with mercurial, ammoniacal, or iodine and belladonna plasters, as practised by Fricke, of Hamburg, and Ricord, of Paris, needs no eulogy. It has been found highly successful by Mr. Dixon, of Coleford, especially in remedying those chronic enlargements of the epididymis which remain after acute inflammation, whether the consequence of gonorrhœa or injuries of that organ. The deposited lymph is sometimes exceedingly slow in being removed, owing to the depending position of the testicle, its high degree of vascularity, and the readiness with which it throws out lymph into the neighbouring parts.

The treatment of un-united fracture by forcible and lengthened apposition, has long been successfully treated by Mr. Amesbury, Sir Benjamin Brodie, and other eminent surgeons; but there are frequently cases in which this forcible approximation of the ends of the bone cannot be adopted owing to the comminuted nature of the parts. In these cases Dr. Norris, of Philadelphia, has tried pressure at the sides and circumference with success, by means of a roller applied from below upwards, and after that, by strong pressure over the projecting bones by means of a bandage secured to a well padded long splint placed upon the inner side of the limb. In order to keep up as much pressure as the parts will bear, a tourniquet may be applied immediately over the point of fracture. In the case related by Dr. Norris, this treatment was continued from September 14, to October 31, i. e. about seven weeks, and with perfect success, although the bones had remained un-united from the middle of February.

The cases of congenital disease of the eye occurring in utero, related by Mr. Crompton and Mr. Walker, of Manchester, are interesting inasmuch as they will put medical men on their guard in these cases: and show us to what an extent disease may advance, when outward observation can be of no avail. Any one not aware of these cases might not be able to defend himself when blamed, for overlooking congenital disease which might be observed a short time after birth. They are confirmed by Mr. Barton, of Manchester, whose opinion in ophthalmic cases must always be looked upon with respect. Whilst we are referring to ophthalmic cases, we will mention the operation for secondary capsular cataract, proposed by M. Sichel. The ex-

traction of the lens in secondary capsular cataract must generally be a difficult operation, on account of the difficulty of bringing the opaque membrane forwards by the hook or forceps; it generally recedes, and the operator has some difficulty in seizing it with his instrument. M. Sichel proposes to extract the opaque capsule through the sclerotic coat in a manner somewhat different from that practised by Bell, Earle, and others: they divided this coat vertically: the consequence was, that the muscles of the eye constantly separated the edges of the wound; whereas, M. Sichel makes his incision through the sclerotica in a horizontal or transverse direction, parallel to the fibres of the external rectus, and as high up as possible.

The late Mr. Earle's method of preventing contraction after burns ought to be more generally known. He kept up careful extension on a splint, not only during the healing of the wound, but for some considerable period afterwards, and he found by this means that "the cicatrized surface diminished in a circular direction, drawing the healthy integument together from side to side, but that no contraction took place in the long axis in which alone it can impede the due motions of the limb." Passive motion should be continued so as to keep up the proper secretion of synovia. This extension should be commenced on the appearance of granulations.

Mr. Velpeau has succeeded in two cases in making an apparent radical cure of hernia, by making a subcutaneous incision on the principles of M. Guerin, then scarifying the interior of the herniary sac, especially of its internal aperture, and finally applying compression along the entire length of the inguinal canal. The steps of his operation are related in another part of this volume. The method of M. Gerdy, although not always successful, seems to be attended with less danger; it consists in pushing up along the inguinal canal, a fold of the integuments of the scrotum, in the form of the finger of a glove, and then securing this fold in its situation, by transfixing it with a strong thread by means of a particular kind of needle. Several of the English Surgeons have also performed this operation with success. An interesting case of Mr. Bransby Cooper's will be found related in article 39 of our second number.

Dr. John Reid has given us a very clear description of the anatomical relations of the blood vessels of the mother to those of the fœtus; a subject which has excited controversy between our most celebrated anatomists. He clearly distinguished the utero-placental arteries, described by Hunter; on gently separating the uterus and placenta they were easily put on the stretch and torn across; at other times they could be drawn out in the form of tufts from the uterine sinuses, in which sinuses the tufts were observed to ramify; some appeared indeed only to dip in the open mouths of the sinuses, while others proceeded from a quarter of an inch to an inch from their open mouths. Dr. Reid next traced by injection the continuity of these tufts with the umbilical placental vessels, and having thus perceived that these tufts in the uterine sinuses were prolongations of the fœtal vessels, he proceeded to examine their anatomical relations to these sinuses; but it would be impossible here to condense the beautiful description which Dr. Reid has given us, and we can only beg of the reader to refer particularly to the paper, especially the practitioner in midwifery; as it will confirm our views of the action of secale cornutum, given in the first number of our Retrospect; the action of this medicine, we are persuaded, has constantly been overlooked by the different writers on the subject; when given in too large doses it produces an *uninterrupted* action of the uterine fibres, and consequently a complete interruption of circulation between the mother and child. The consequence is the death of the child from asphyxia, the blood being no longer decarbonized; this will be more particularly the case in first labours, or when any impediment to the descent of the child exists, or when the placenta is situated, as Mr. Hugh

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Carmichael affirms it *invariably* is, and where no doubt it is occasionally, low down on the uterine parieties.

We owe much to Dr. Green, one of the editors of the Provincial Medical and Surgical Journal, for his valuable papers on the pathology of the diseases of infancy. No author has previously written on the subject of scrofulous tubercle of the brain. Several very excellent papers on the diseases of children have appeared in his journal, and amongst the rest, this which we have selected; tubercles existed in other parts of the body, as in the lungs, mesenteric glands, and the kidney. "In the centre of the pons varolii, extending to the left side, there was a round crude turbercle, nearly as large as a walnut, the surface of the tubercle was irregular, and the surrounding nervous substance was softened to the depth of about a line."

The late Dr. James Hunter, of the Edinburgh Eye Dispensary, points out to us very clearly the perniciousness of artificial light on the retina; common day-light is composed of red, yellow, and blue rays, in the ratio of five, three, and eight; that, is a predominance of blue rays; whereas, artificial light, as that from gas, candles, &c., has this proportion reversed, that is, there is a great excess of the red rays, and the blue rays are most deficient; the consequence is, that the retina becomes exceedingly more excited and heated by the glare of a gaslight than by common daylight, and the way to remedy this is either to cover the gaslight or candle with a blue glass or to wear blue spectacles.

We might go on writing on the different interesting discoveries and improvements which crowd upon our minds, but our space forbids us; we cannot, however, close this volume without referring with pleasure to the excellent retrospective addresses of Dr. Scott, and Mr. Dodd, published in the Transactions of the Provincial Medical and Surgical Association, which take a clear view of many of the advances made in our profession, and are well worth the perusal of our professional brethren throughout the empire.

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